



**PLANNING COMMISSION STAFF REPORT
MAJOR SUBDIVISION SMF2022 0002
HEARING DATE: DECEMBER 13, 2022**

(907) 586-0715

CDD_Admin@juneau.org

www.juneau.org/community-development

155 S. Seward Street • Juneau, AK 99801

DATE: November 30, 2022
TO: Michael LeVine, Chair, Planning Commission
BY: Jill Maclean, Director | AICP *Jill Maclean*

PROPOSAL: Applicant requests a Modification to the Final Plat regarding Note 9 HOA Bylaws

STAFF RECOMMENDATION: Approval

KEY CONSIDERATIONS FOR REVIEW:

- SMF2021 0002 was approved on May 11, 2021
- ARF2021 0001 was approved on May 11, 2021
- Applicant seeks to revise the language in Note 9 regarding Homeowners' Association (HOA) Bylaws
- No other modifications are requested

GENERAL INFORMATION	
Property Owner	Bicknell Inc.
Applicant	Bicknell Inc.
Property Address	4090 Delta Drive Unit 15
Legal Description	Delta Drive Lot 15
Parcel Number	5B2401620115
Zoning	D18
Lot Size	79,189 sq. ft.
Water/Sewer	Public
Access	Delta Drive
Existing Land Use	
Associated Applications	SMF2021 0001; ARF2021 0001

ALTERNATIVE ACTIONS:

1. **Amend:** amend the approval to require conditions.
2. **Deny:** deny the permit and adopt new findings for items 1-3 below that support the denial.
3. **Continue:** to a future meeting date if determined that additional information or analysis is needed to make a decision, or if additional testimony is warranted.

ASSEMBLY ACTION REQUIRED:

Assembly action is not required for this permit.

STANDARD OF REVIEW:

- Quasi-judicial decision
- Requires five (5) affirmative votes for approval
- Code Provisions:
 - o CBJ 49.15.402
 - o CBJ 49.15.412
 - o CBJ 49.80

The Commission shall hear and decide the case per CBJ 49.15.400(a) - Purpose and applicability. *The purpose of this article is to facilitate the subdivision of land to promote the public health, safety, and general welfare of the citizens of the CBJ in accordance with the Comprehensive Plan of the City and Borough of Juneau, Alaska.*

And per CBJ 49.15.402(a) - A major subdivision permit is required for subdivisions resulting in 14 or more lots.

SITE FEATURES AND ZONING



SURROUNDING ZONING AND LAND USES	
North (D18)	Thunder Mountain Mobile Home Park
South (D18)	Vacant
East (D18)	Thunder Mountain Mobile Home Park
West (D18)	Multi-family four-plex

SITE FEATURES	
Anadromous	None
Flood Zone	None
Hazard	None
Hillside	None
Wetlands	None
Parking District	None
Historic District	None
Overlay Districts	None

BACKGROUND INFORMATION

Project Description – The applicant requests a modification to the final plat for the Delta Drive Subdivision, an Alternative Residential Subdivision (ARS) creating 15 lots. The project, creating 14 unit-lots for residential uses and one (1) parent-lot containing the perimeter buffer, privately maintained access road, and other common amenities (15 lots total), was approved on May 11, 2021 by the Commission.

The applicant seeks to modify the language on Plat Note 9 to the following:

THIS PLAT CREATES AN ALTERNATE RESIDENTIAL SUBDIVISION PURSUANT TO AND GOVERNED BY THE CITY AND BOROUGH OF JUNEAU LAND USE CODE TITLE 49 ARTICLE IX. EACH UNIT-LOT IS SUBJECT TO THE BYLAWS OF THUNDER MOUNTAIN VIEWS HOA, INC., AS THEY MAY BE AMENDED. THUNDER MOUNTAIN VIEWS HOA, INC. HAS A LIEN ON A UNIT-LOT FOR AN ASSESSMENT LEVIED AGAINST THE UNIT-LOT FROM THE TIME THE ASSESSMENT BECOMES DUE WITH THE SAME RIGHTS AS PROVIDED UNDER AS 34.08.470 FOR ASSOCIATIONS OF COOPERATIVES WHOSE UNIT OWNERS' INTERESTS IN THE UNITS ARE REAL ESTATE. EACH OWNER OF A UNIT-LOT IS REQUIRED TO, AND SHALL BE, THROUGHOUT THEIR OWNERSHIP, A MEMBER OF THE THUNDER MOUNTAIN VIEWS HOA, INC., AND IS REQUIRED TO PAY ASSESSMENTS ASSESSED BY THUNDER MOUNTAIN VIEWS HOA, INC. THE ANNUAL AVERAGE COMMON EXPENSE LIABILITY OF A MEMBER, EXCLUSIVE OF ANY INSURANCE PREMIUMS PAID BY THE ASSOCIATION, MAY NOT EXCEED \$100, AS ADJUSTED UNDER AS 34.08.820.

The Commission shall hear and decide the case per CBJ 49.15.400(a) - Purpose and applicability. *The purpose of this article is to facilitate the subdivision of land to promote the public health, safety, and general welfare of the citizens of the CBJ in accordance with the Comprehensive Plan of the City and Borough of Juneau, Alaska.*

And per CBJ 49.15.402(a) - A major subdivision permit is required for subdivisions resulting in 14 or more lots.

Background -

Refer to Attachment C, Notice of Decision and Staff Report SMF2021 0001 for details on the development.

AGENCY REVIEW

CDD conducted an agency review comment period between November 29, 2022 and December 9, 2022.

Agency	Summary
Building Division	No comments
CCFR	No comments
General Engineering	No comments

PUBLIC COMMENTS

CDD conducted a public comment period between November 28, 2022 and December 9, 2022. Public notice was mailed to property owners within 500 feet of the subject parcel. A public notice sign was also posted on-site two weeks prior to the scheduled hearing. At the time of publication, no public comments had been received.

FINDINGS

Final plat approval criteria - Per CBJ 49.15.402(f)(3) the Director makes the following findings:

- 1. Has the applicant complied with any conditions or plat notes as required in the Notice of Decision approving the preliminary plat?***

Analysis: No addition analysis needed.

Finding: **Yes.** The conditions of preliminary plat approval have been met.

- 2. Has the applicant constructed all required improvements or provided a financial guarantee in accordance with CBJ 49.55.010?***

Analysis: Discuss what improvements were required and if they were constructed. OR discuss the financial guarantee that was provided.

Finding: **Yes.** The applicant has constructed all required improvements OR provided a financial guarantee.

- 3. Does the Final Plat meet the standards set forth in CBJ 49.15.412 for final plats?***

Analysis: No additional analysis needed.

Finding: **Yes.** The Final Plat complies with CBJ 49.15.415 Final Plat Standards.

RECOMMENDATION

Staff recommends the Planning Commission adopt the Director's analysis and findings and APPROVE the requested final plat. The permit would modify Final Plat Note 9 regarding HOA Bylaws.

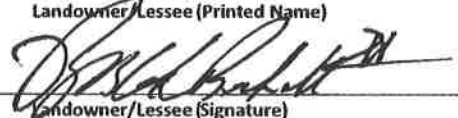
STAFF REPORT ATTACHMENTS

Item	Description
Attachment A	Application Packet
Attachment B	Abutters Notice
Attachment C	SMF2021 0002 Final Plat Notice of Decision & Staff Report



DEVELOPMENT PERMIT APPLICATION

NOTE: Development Permit Application forms must accompany all other Community Development Department land use applications. This form and all documents associated with it are public record once submitted.

PROPERTY LOCATION	
Physical Address 4090 Delta Dr	
Legal Description(s) (Subdivision, Survey, Block, Tract, Lot) DELTA DRIVE LT 15	
Parcel Number(s) 5B2401620115	
☐ This property is located in the downtown historic district ☐ This property is located in a mapped hazard area, if so, which _____	
LANDOWNER/ LESSEE	
Property Owner Bicknell Inc	Contact Person David Blommer
Mailing Address PO Box 33517 Juneau, AK 99801	Phone Number(s) 9077895727
E-mail Address dblommer@bicknellinc.com	
LANDOWNER/ LESSEE CONSENT	
Required for Planning Permits, not needed on Building/ Engineering Permits. Consent is required of all landowners/ lessees. If submitted with the application, alternative written approval may be sufficient. Written approval must include the property location, landowner/ lessee's printed name, signature, and the applicant's name.	
I am (we are) the owner(s) or lessee(s) of the property subject to this application and I (we) consent as follows: A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission. B. I (we) grant permission for the City and Borough of Juneau officials/employees to inspect my property as needed for purposes of this application.	
Roscoe Bicknell President Landowner/Lessee (Printed Name) Title (e.g.: Landowner, Lessee)	
X 	NOV 16 2022 Date
Landowner/Lessee (Printed Name) Title (e.g.: Landowner, Lessee)	
X _____	_____
Landowner/Lessee (Signature) Date	
NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours. We will make every effort to contact you in advance, but may need to access the property in your absence and in accordance with the consent above. Also, members of the Planning Commission may visit the property before a scheduled public hearing date.	
APPLICANT If same as LANDOWNER, write "SAME"	
Applicant (Printed Name) Same	Contact Person _____
Mailing Address _____	Phone Number(s) _____
E-mail Address _____	_____
X _____	_____
Applicant's Signature Date of Application	

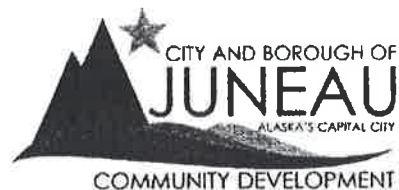
DEPARTMENT USE ONLY BELOW THIS LINE

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

For assistance filling out this form, contact the Permit Center at 586-0770.

Intake Initials AS	Case Number SMF 22-02 SMF 22-02
Date Received 11/22/22	

Attachment A - Application



SUBDIVISION AND DEVELOPMENT PLAN APPLICATION

See subdivision hand-outs for more information regarding the permitting process and the materials required for a complete application.

NOTE: Must be accompanied by a DEVELOPMENT PERMIT APPLICATION form.

PROJECT SUMMARY

Revise a plat note on existing plat

Number of Existing Parcels 15 Total Land Area _____ Number of Resulting Parcels 15

HAS THE PARCEL BEEN CREATED BY A MINOR SUBDIVISION IN THE PRECEDING 24 MONTHS

☐ NO

☐ YES Case Number _____

TYPE OF SUBDIVISION OR PLATTING APPROVAL REQUESTED

MINOR DEVELOPMENT

(changing or creating 13 or fewer lots)

- ☐ Preliminary Plat (MIP)
- ☐ Final Plat (MIF)
- ☐ Panhandle Subdivision
- ☐ Accretion Survey
- ☐ Boundary Adjustment
- ☐ Lot Consolidation (SLC)
- ☐ Bungalow Lot Subdivision
- ☐ Common Wall/Zero Lot Subdivision
- ☐ Other _____

MAJOR DEVELOPMENT

(changing or creating 14 or more lots)

- ☐ Preliminary Plat (SMP)
- ☐ Final Plat (SMF)
- ☐ Preliminary Development Plan – PUD (PDP)
- ☐ Final Development Plan – PUD (PDF) Preliminary
- ☐ Development Plan – ARS (ARP) Final
- ☐ Development Plan – ARS (ARF)
- ☐ Bungalow Lot Subdivision
- ☐ Common Wall/Zero Lot Subdivision
- ☒ Other Revise a plat note on existing plat

ALL REQUIRED DOCUMENTS ATTACHED

☐ Pre-application conference notes

☐ Narrative including:

- ☐ Legal description(s) of property to be subdivided
- ☐ Existing structures on the land
- ☐ Zoning district
- ☐ Density
- ☐ Access
- ☐ Current and proposed use of any structures
- ☐ Utilities available
- ☐ Unique characteristics of the land or structure(s)

☐ Preliminary Plat checklist

MAJOR SUB
PLAT AMENDMENT
\$110 + \$25 PER LOT

Plat 2021-40

govern sign 650.00

SMP 22-02

DEPARTMENT USE ONLY BELOW THIS LINE

SUBDIVISION/PLATTING FEES	Fees	Check No.	Receipt	Date
Application Fees	\$ <u>485</u>	<u>\$110 + \$25/lot (15 lots)</u>		
Admin. of Guarantee	\$ _____	<u>sign fee: \$50</u>		
Adjustment	\$ <u>635</u>	<u>sign deposit: \$100</u>		
Total Fee	\$ <u>635</u>			

For assistance filling out this form, contact the Permit Center at 586-0770.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

Case Number <u>SMP 22-02</u>	Date Received <u>11/22/22</u>
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Revised October 2019 - Page 1 of 1

Attachment A - Application

David Sevdy

From: dblommer@bicknellinc.com
Sent: Monday, November 21, 2022 12:45 PM
To: Permits; Jill Maclean
Subject: Fwd: Plat application
Attachments: Delta Dr Plat note revision application.pdf

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Hi, please see attached application for a plat amendment. Here is the language we would like added:

David – the revised plat note 9 is below. --- Chris

9. THIS PLAT CREATES AN ALTERNATE RESIDENTIAL SUBDIVISION PURSUANT TO AND GOVERNED BY THE CITY AND BOROUGH OF JUNEAU LAND USE CODE TITLE 49 ARTICLE IX. EACH UNIT-LOT IS SUBJECT TO THE BYLAWS OF THUNDER MOUNTAIN VIEWS HOA, INC., AS THEY MAY BE AMENDED. THUNDER MOUNTAIN VIEWS HOA, INC. HAS A LIEN ON A UNIT-LOT FOR AN ASSESSMENT LEVIED AGSINST THE UNIT-LOT FROM THE TIME THE ASSESSMENT BECOMES DUE WITH THE SAME RIGHTS AS PROVDIED UNDER AS 34.08.470 FOR ASSOCIATIONS OF COOPERATIVES WHOSE UNIT OWNERS' INTERESTS IN THE UNITS ARE REAL ESTATE. EACH OWNER OF A UNIT-LOT IS REQUIRED TO, AND SHALL BE, THROUGHOUT THEIR OWNERSHIP, A MEMBER OF THE THUNDER MOUNTAIN VIEWS HOA, INC., AND IS REQUIRED TO PAY ASSESSMENTS ASSESSED BY THUNDER MOUNTAIN VIEWS HOA, INC. THE ANNUAL AVERAGE COMMON EXPENSE LIABILITY OF A MEMBER, EXCLUSIVE OF ANY INSURANCE PREMIUMS PAID BY THE ASSOCIATION, MAY NOT EXCEED \$100, AS ADJUSTED UNDER AS 34.08.820.

If the attachment didn't go through, please call me at 9073215758

Thank you,
David
----- Original Message -----

Subject: Plat application
Date: 2022-11-16 15:52
From: David Blommer <dblommer@gmail.com>
To: David Blommer <dblommer@bicknellinc.com>, David Blommer <dblommer@gmail.com>

GENERAL NOTES

- ALL BEARINGS SHOWN ARE TRUE BEARINGS AS ORIENTED TO THE BASIS OF BEARING AND DISTANCES SHOWN ARE REDUCED TO HORIZONTAL FIELD DISTANCES.
- THE ERROR OF CLOSURE OF THIS SURVEY DOES NOT EXCEED 1:10,000.
- BASIS OF BEARING**
THE BASIS OF BEARING FOR THIS PLAT IS THE BEARING OF S 0° 01' 00" W, AS SHOWN ON PLAT No. 73-17, DATED OCTOBER 29, 1973, BETWEEN THE RECOVERED MONUMENTS, AS SHOWN ON THIS PLAT.
- WHERE RECORD SURVEY COURSES (BEARINGS AND/OR DISTANCES) DIFFER FROM THAT OF ACTUAL FIELD MEASURED AND/OR COMPUTED SURVEY COURSES, THE RECORD BEARING AND/OR DISTANCES IS SHOWN WITHIN PARENTHESIS AND REFERENCED TO A RECORDED PLAT (R#).
- THE PRELIMINARY FIELD SURVEYING WAS PERFORMED ON MAY 26-27, 2020, UTILIZING A TRIMBLE S7 ROBOTICS TOTAL STATION WITH STANDARD LASER RANGING MEASUREMENTS.
- RECORD INFORMATION**
THE RECORD INFORMATION USED FOR THIS SUBDIVISION IS DERIVED FROM THE OFFICIAL PLATS: PLAT No. 73-17, JUNEAU RECORDING DISTRICT, DATED OCTOBER 29, 1973 (R1), PLAT No. 92-18, JUNEAU RECORDING DISTRICT, DATED APRIL 26, 1992 (R2);
- ALL DISTANCES ARE MEASURED IN U.S. SURVEY FEET, AND HAVE BEEN REDUCED TO THEIR HORIZONTAL EQUIVALENTS.
- DOMESTIC WATER AND SANITARY SEWER DISPOSAL PROVIDED BY THE CITY AND BOROUGH OF JUNEAU PUBLIC UTILITIES.
- THIS PLAT CREATES AN ALTERNATE RESIDENTIAL SUBDIVISION PURSUANT TO AND GOVERNED BY THE CITY AND BOROUGH OF JUNEAU LAND USE CODE TITLE 49 ARTICLE IX. EACH OWNER OF A UNIT-LOT IS REQUIRED TO, AND SHALL BE, THROUGHOUT THEIR OWNERSHIP, A MEMBER OF THE THUNDER MOUNTAIN VIEWS HOA, INC., REQUIRED TO PAY ASSESSMENTS ASSESSED BY THUNDER MOUNTAIN VIEWS HOA, INC.
- PER CBJ 49.15.920(j), NO PARKING AREAS, DWELLING UNITS, UNIT-LOTS, OR PERMISSIBLE USES MAY BE LOCATED WITHIN THE PERIMETER BUFFER. ACCESS TO THE DEVELOPMENT MAY CROSS A PORTION OF THE BUFFER.
- ACCESS TO LOTS SHALL BE VIA ACCESS EASEMENTS SHOWN ON THIS PLAT AND IS SUBJECT TO THE REQUIREMENTS IN THE BYLAWS OF THUNDER MOUNTAIN VIEWS HOA, INC.
- LOT 15, BLANKET EASEMENT, PERIMETER BUFFER, AND DRAINAGE EASEMENTS SHOWN ON THIS PLAT ARE PRIVATE EASEMENTS, AND THE LAND ON WHICH THE PRIVATE EASEMENTS ARE LOCATED IS OWNED AND MANAGE BY THUNDER MOUNTAIN VIEWS HOA, INC.

OWNERSHIP CERTIFICATE

BICKNELL, INC. HEREBY CERTIFIES THAT BICKNELL, INC. IS THE OWNER OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT IT HEREBY ADOPTS THIS PLAT OF SUBDIVISION WITH ITS FREE CONSENT, AND DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS AND OTHER OPEN SPACES TO PUBLIC OR PRIVATE USE AS NOTED:

OWNER: Roscoe V. Bicknell, IV DATE: Nov 19 2021 2021
ROS COE V. BICKNELL, IV
BICKNELL, INC.

NOTARY ACKNOWLEDGMENT

UNITED STATES OF AMERICA }
STATE OF ALASKA } SS

THIS IS TO CERTIFY THAT ON THIS 19 DAY OF November, 2021, BEFORE ME, THE UNDERSIGNED A NOTARY PUBLIC IN AND FOR THE STATE OF ALASKA, DULY COMMISSIONED AND SWORN, PERSONALLY APPEARED Roscoe V. Bicknell, IV TO ME KNOWN TO BE THE PERSONS DESCRIBED IN AND WHO EXECUTED THE ABOVE AND FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT THEY SIGNED AND SEALED THE SAME FREELY AND VOLUNTARILY FOR THE USES AND PURPOSES THEREIN MENTIONED.
WITNESS MY HAND AND OFFICIAL SEAL THE DAY AND YEAR IN THIS CERTIFICATE FIRST ABOVE WRITTEN.

Carole Bullman
NOTARY PUBLIC FOR ALASKA
MY COMMISSION EXPIRES: 2/18/2024

PLANNING COMMISSION PLAT APPROVAL

I HEREBY CERTIFY THAT THE SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE SUBDIVISION REGULATIONS OF THE CITY AND BOROUGH OF JUNEAU, ALASKA AND THAT SAID PLAT HAS BEEN APPROVED BY THE PLANNING COMMISSION BY PLAT RESOLUTION NO. SMP 20200004, DATED May 11, 2021, AND THAT THE PLAT SHOWN HEREON HAS BEEN APPROVED FOR RECORDING IN THE JUNEAU RECORDING DISTRICT, STATE RECORDS OFFICE AT ANCHORAGE.

CHAIRMAN OF THE PLANNING COMMISSION
CITY AND BOROUGH OF JUNEAU

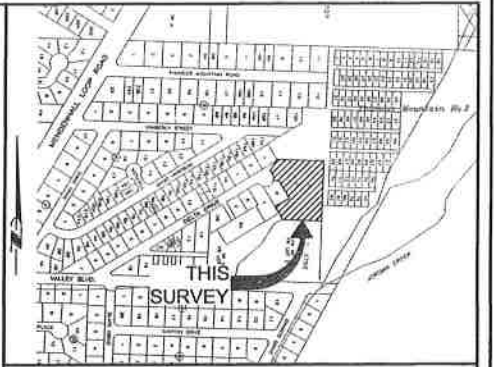
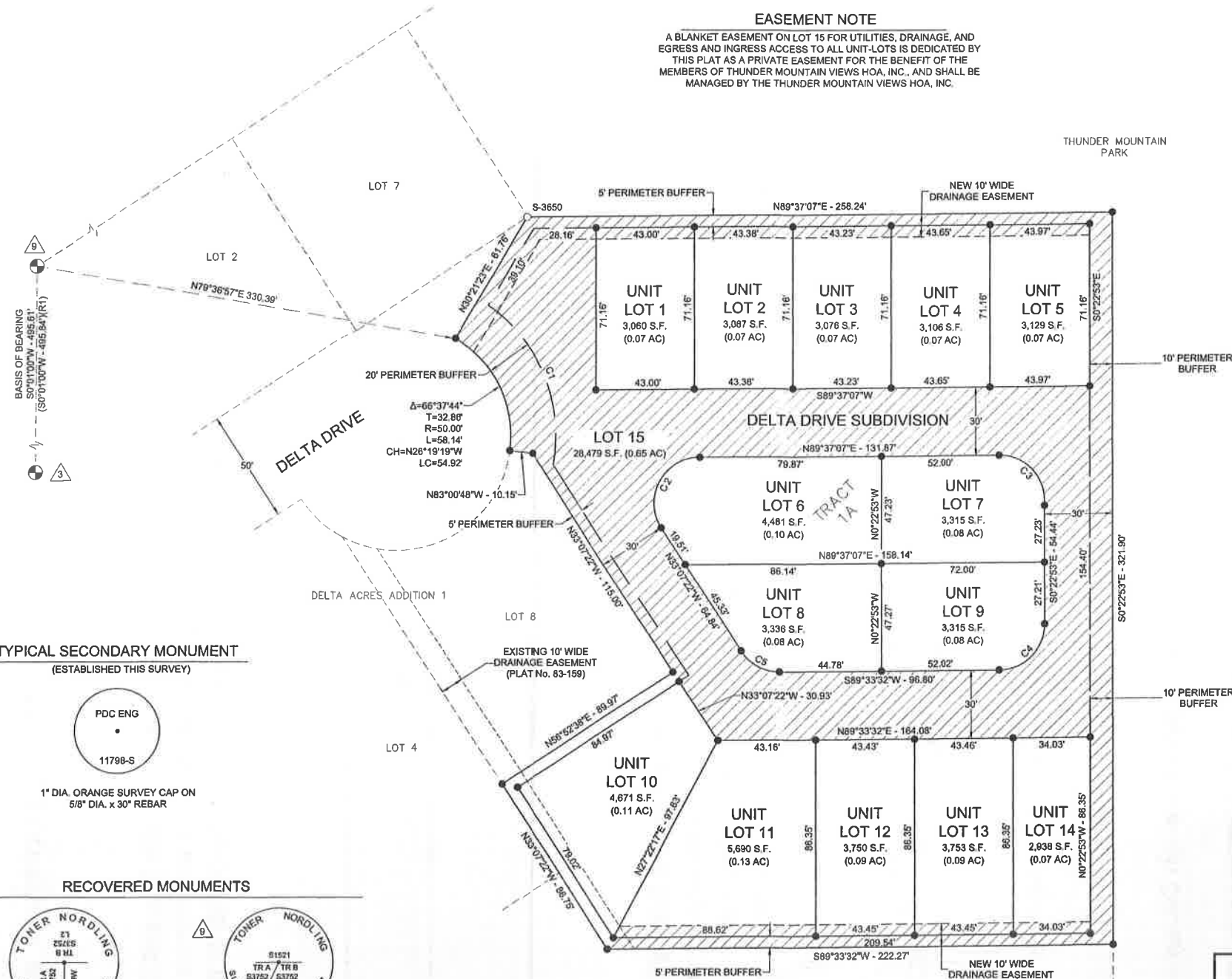
DATED November 29, 2021

ATTEST: Jane Cathcart
MUNICIPAL CLERK, Deputy
CITY AND BOROUGH OF JUNEAU



EASEMENT NOTE

A BLANKET EASEMENT ON LOT 15 FOR UTILITIES, DRAINAGE, AND EGRESS AND INGRESS ACCESS TO ALL UNIT-LOTS IS DEDICATED BY THIS PLAT AS A PRIVATE EASEMENT FOR THE BENEFIT OF THE MEMBERS OF THUNDER MOUNTAIN VIEWS HOA, INC., AND SHALL BE MANAGED BY THE THUNDER MOUNTAIN VIEWS HOA, INC.



VICINITY MAP
SOURCE: CBJ PROPERTY ATLAS
SCALE: 1"= 500'

LEGEND

- PRIMARY MONUMENT (RECOVERED)
- SECONDARY MONUMENT (RECOVERED)
- SECONDARY MONUMENT (ESTABLISHED)
- SURVEYED LINE
- UNSURVEYED LINE
- EASEMENT LINE
- NEW EASEMENT LINE
- (R1) PLAT No. 73-17, JRD
- (R2) PLAT No. 92-18, JRD
- ACCESS, UTILITY & DRAINAGE EASEMENT
- PERIMETER BUFFER

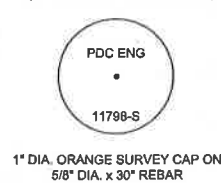
SURVEYOR'S CERTIFICATE

I, CRAIG O. RANSON, IN MY CAPACITY AS A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF ALASKA, CERTIFY THAT THIS PLAT REPRESENTS THE SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE ACCURACY OF THE SURVEY IS WITHIN THE LIMITS REQUIRED BY TITLE 49 OF THE CODE OF THE CITY AND BOROUGH OF JUNEAU, THAT ALL DIMENSIONS AND RELATIVE BEARINGS ARE CORRECT AND THAT MONUMENTS ARE SET IN PLACE AND NOTED UPON THIS PLAT AS PRESENTED.

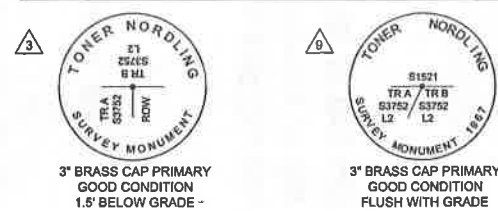
DATE: 11/15/21



TYPICAL SECONDARY MONUMENT



RECOVERED MONUMENTS



CURVE #	LENGTH	DELTA	RADIUS	CHORD BEARING	CORD DISTANCE
C1	60.21'	65° 38' 55"	70.00'	N22° 43' 05"W	75.89'
C2	42.84'	122° 44' 29"	20.00'	S28° 14' 53"W	35.11'
C3	31.42'	90° 00' 00"	20.00'	N45° 22' 53"W	28.28'
C4	31.40'	89° 56' 25"	20.00'	N44° 35' 20"E	28.27'
C5	20.01'	57° 18' 06"	20.00'	S61° 48' 55"E	19.18'

2021-40
Plat #
Juneau
Rec Dist
12/2 2021
Date
Time 12:19 P.M.

SOURCE: N.O.A.A.
MAGNETIC DECLINATION 19°11'E
NOVEMBER 14, 2017 CHANGING BY
0°11' W/YEAR

SCALE: 1"=30'

SMP20200004/ARP20200001



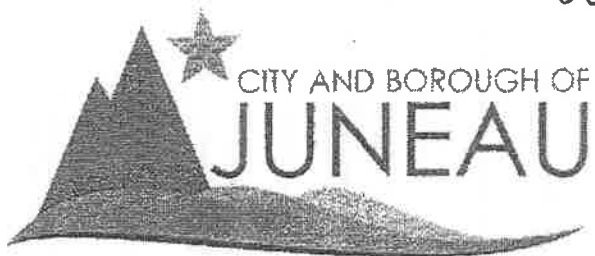
PLAN • DESIGN • CONSTRUCT
A REEFED COMPANY
9109 Mendenhall Mall Rd. Ste. 4, Juneau, AK 99801
907.780.6060 | AECC003

A PLAT OF
DELTA DRIVE SUBDIVISION
A SUBDIVISION OF
THUNDER MOUNTAIN PARK
TRACT 1A
WITHIN U.S. SURVEY NO. 3752
WITHIN CITY AND BOROUGH OF JUNEAU, ALASKA
JUNEAU RECORDING DISTRICT

STATE RECORDER'S OFFICE AT ANCHORAGE

OWNER: BICKNELL, INC.
P.O. BOX 33517
JUNEAU, ALASKA 99803
DATE: November 15, 2021 SCALE: 1"=30' SHEET 1 OF 1 PDC PROJ. No. 20098JN
SURVEYOR: PDC ENGINEERS
9109 MENDENHALL MALL ROAD SUITE 4
JUNEAU, ALASKA 99801
(907) 780-6060

Attachment A - Application



Juneau Recording District PL 2021-40

Treasury Division
155 S. Seward Street
Juneau, AK 99801
907.586.5215 x4905 Phone
907.586.5367 Fax

CERTIFICATION OF TAXES AND ASSESSMENTS PAID

I, the undersigned, being duly appointed, qualified Treasurer for the City and Borough of Juneau, First Judicial District, State of Alaska, do hereby certify that, according to the records of the City and Borough of Juneau, the following described real property is carried on the tax records in the name of:

Bicknell Inc

Current Owner

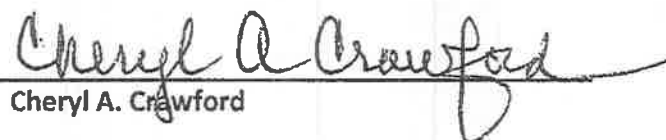
THUNDER MOUNTAIN PARK TR 1A

Legal Description

5B2401620011

Parcel Code Number

and that, all Real Property taxes and assessments levied by the City and Borough of Juneau against said Real Property have been paid in full. If approval is sought between January 1 and the date of levy, there is on deposit with the Treasury Department an amount sufficient to pay Real Property tax for the current year based on current available information; however, owner remains responsible for the balance of any taxes owed when billing occurs on July 1, 2021.


Cheryl A. Crawford

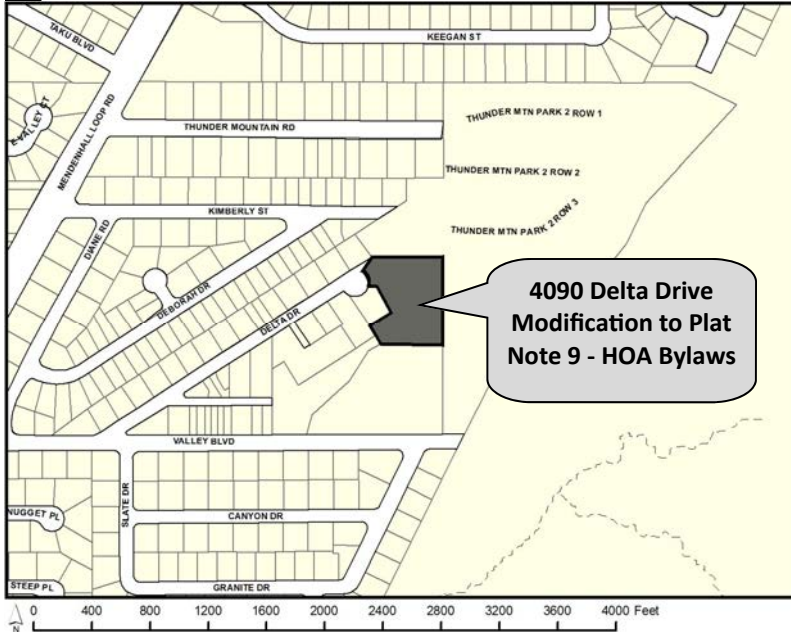
October 1, 2021

Date

This Certification of Payment of Taxes is valid through December 31, 2021

Invitation to Comment

On a proposal to be heard by the CBJ Planning Commission
Your Community, Your Voice



155 S. Seward Street Juneau, Alaska 99801

TO:
4050 DELTA LLC
6000 THANE RD
JUNEAU, AK 99801

An application has been submitted for consideration and public hearing by the Planning Commission for a **modification to the Delta Drive Subdivision Plat Note 9 regarding HOA Bylaws** at **4090 Delta Drive** in a D18 zone. No further subdivision is proposed.

TIMELINE

Staff Report expected to be posted **Monday, December 5, 2022** at <https://juneau.org/community-development/planning-commission>. Find hearing results, meeting minutes and more here as well.

Now through Dec. 1

Comments received during this period will be sent to the Director, Jill Maclean, to be included as an attachment in the staff report.

Dec. 1 — noon, Dec. 9

Comments received during this period will be sent to Commissioners to read in preparation for the hearing.

HEARING DATE & TIME: 7:00 pm, Dec. 13, 2022

This virtual meeting will be by video and telephonic participation only. To join the Webinar, visit: <https://juneau.zoom.us/j/85488605721>. The Webinar ID is: 854 8860 5721. To join by telephone, call: +1 253 205 0468 or +1 346 248 7799 or +1 669 900 6833 or +1 301 715 8592 or +1 312 626 6799 or +1 929 436 2866 and enter the Webinar ID.

DEC. 14

The results of the hearing will be posted online.

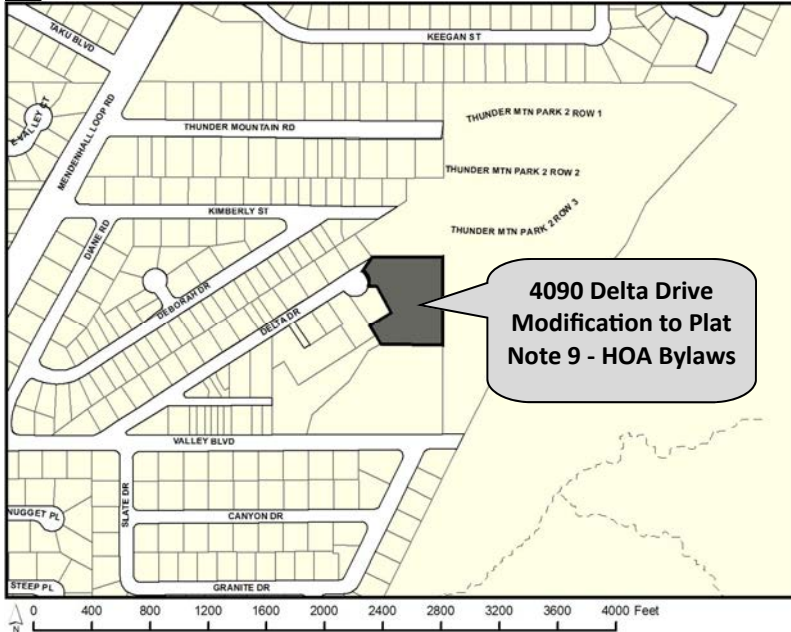
Phone: (907)586-0715 ♦ Email: pc_comments@juneau.org
Mail: Community Development, 155 S. Seward St, Juneau AK 99801

Printed November 28, 2022

Case No.: SMF2022 0002
Parcel No.: 5B2401620011
CBJ Parcel Viewer: <http://epv.juneau.org>

Invitation to Comment

On a proposal to be heard by the CBJ Planning Commission
Your Community, Your Voice



**4090 Delta Drive
Modification to Plat
Note 9 - HOA Bylaws**



155 S. Seward Street Juneau, Alaska 99801

TO: ADAIR MACKENZIE SONESEN &
BRIAN A SONESEN
8482 THUNDER MOUNTAIN RD UNIT B
JUNEAU, AK 99801

An application has been submitted for consideration and public hearing by the Planning Commission for a **modification to the Delta Drive Subdivision Plat Note 9 regarding HOA Bylaws** at **4090 Delta Drive** in a D18 zone. No further subdivision is proposed.

TIMELINE

Staff Report expected to be posted **Monday, December 5, 2022** at <https://juneau.org/community-development/planning-commission>. Find hearing results, meeting minutes and more here as well.

Now through Dec. 1

Comments received during this period will be sent to the Director, Jill Maclean, to be included as an attachment in the staff report.

Dec. 1 — noon, Dec. 9

Comments received during this period will be sent to Commissioners to read in preparation for the hearing.

HEARING DATE & TIME: 7:00 pm, Dec. 13, 2022

This virtual meeting will be by video and telephonic participation only. To join the Webinar, visit: <https://juneau.zoom.us/j/85488605721>. The Webinar ID is: 854 8860 5721. To join by telephone, call: +1 253 205 0468 or +1 346 248 7799 or +1 669 900 6833 or +1 301 715 8592 or +1 312 626 6799 or +1 929 436 2866 and enter the Webinar ID.

DEC. 14

The results of the hearing will be posted online.

Phone: (907)586-0715 ♦ Email: pc_comments@juneau.org
Mail: Community Development, 155 S. Seward St, Juneau AK 99801

Printed November 28, 2022

Case No.: SMF2022 0002
Parcel No.: 5B2401620011
CBJ Parcel Viewer: <http://epv.juneau.org>

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report



Planning Commission

(907) 586-0715
PC_Comments@juneau.org
www.juneau.org/plancomm
155 S. Seward Street • Juneau, AK 99801

PLANNING COMMISSION NOTICE OF DECISION

Date: May 12, 2021
File No.: SMF2021 0002

Bicknell, Inc.
ATTN: David Blommer
PO Box 33517
Juneau, AK 99801

Proposal: Final plat approval for the Delta Drive Subdivision, an Alternative Residential Subdivision creating 14 unit-lots and 1 parent lot.

Property Address: 4090 Delta Drive

Legal Description: Thunder Mountain Park Tract 1A

Parcel Code No.: 5B2401620011

Hearing Date: May 11, 2021

The Planning Commission, at its regular public meeting, adopted the analysis and findings listed in the attached memorandum dated April 27, 2021, and APPROVED the final plat to be conducted as described in the project description and project drawings submitted with the application.

Attachment: April 27, 2021 memorandum from Laurel Christian, Community Development, to the CBJ Planning Commission regarding SMF2021 0002.

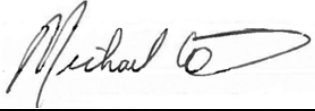
May 11, 2021 memorandum from Laurel Christian, Community Development, to the CBJ Planning Commission regarding SMF2021 0002.

This Notice of Decision does not authorize any construction. Prior to starting any project, it is the applicant's responsibility to obtain the required building permits.

This Notice of Decision constitutes a final decision of the CBJ Planning Commission. Appeals must be brought to the CBJ Assembly in accordance to CBJ §01.50.030. Appeals must be filed by 4:30 P.M. on the day twenty days from the date the decision is filed with the City Clerk, pursuant to CBJ §01.50.030(c). Any action by the applicant in reliance on the decision of the Planning Commission shall be at the risk that the decision may be reversed on appeal (CBJ §49.20.120).

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

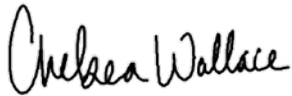
Effective Date: The permit is effective upon approval by the Commission, May 11, 2021.



Michael LeVine, Chair
Planning Commission

May 19, 2021

Date



Filed With City Clerk

May 19, 2021

Date

cc: Plan Review

NOTE: The Americans with Disabilities Act (ADA) is a federal civil rights law that may affect this subdivision. ADA regulations have access requirements above and beyond CBJ - adopted regulations. Owners and designers are responsible for compliance with ADA. Contact an ADA - trained architect or other ADA trained personnel with questions about the ADA: Department of Justice (202) 272-5434, or fax (202) 272-5447, NW Disability Business Technical Center (800) 949-4232, or fax (360) 438-3208.



PLANNING COMMISSION STAFF REPORT
MAJOR SUBDIVISION SMF2021 0002
HEARING DATE: MAY 11, 2021

(907) 586-0715
 CDD_Admin@juneau.org
 www.juneau.org/CDD
 155 S. Seward Street • Juneau, AK 99801

DATE: April 27, 2021
TO: Michael LeVine, Chair, Planning Commission
BY: Laurel Christian, Planner II *Laurel Christian*
THROUGH: Jill Maclean, Director, AICP

PROPOSAL: Applicant requests Final plat approval for the Delta Drive Subdivision, an Alternative Residential Subdivision creating 14 unit-lots and 1 parent lot.

STAFF RECOMMENDATION: Approval

KEY CONSIDERATIONS FOR REVIEW:

- The final plat meets the requirements of 49.15.412 for final plats.
- All conditions of preliminary plat approval are met or on-going.
- This approval is subject to ARF20210001.

ALTERNATIVE ACTIONS:

1. **Amend:** amend the approval to require conditions.
2. **Deny:** deny the permit and adopt new findings for items 1-3 below that support the denial.
3. **Continue:** to a future meeting date if determined that additional information or analysis is needed to make a decision, or if additional testimony is warranted.

ASSEMBLY ACTION REQUIRED:

Assembly action is not required for this permit.

STANDARD OF REVIEW:

- Quasi-judicial decision
- Requires five (5) affirmative votes for approval
- Code Provisions:
 - o 49.15.402
 - o 49.15.412
 - o 49.80

GENERAL INFORMATION	
Property Owner	Bicknell, Inc.
Applicant	Bicknell, Inc.
Property Address	4090 Delta Drive
Legal Description	Thunder Mountain Park Tract 1A
Parcel Number	5B2401620011
Zoning	D18 Multi-family Residential
Lot Size	79,189 sq. ft.
Water/Sewer	Public
Access	Delta Drive
Existing Land Use	Vacant
Associated Applications	SMP20200004; ARP20200001; ARF20210001

The Commission shall hear and decide the case per 49.15.400(a) - Purpose and applicability. *The purpose of this article is to facilitate the subdivision of land to promote the public health, safety, and general welfare of the citizens of the CBJ in accordance with the Comprehensive Plan of the City and Borough of Juneau, Alaska.*

And per 49.15.402(a) *A major subdivision permit is required for subdivisions resulting in 14 or more lots.*

SITE FEATURES AND ZONING



SURROUNDING ZONING AND LAND USES	
North (D18)	Thunder Mountain Mobile Home Park
South (D18)	Vacant
East (D18)	Thunder Mountain Mobile Home Park
West (D18)	Multi-family four-plex

SITE FEATURES	
Anadromous	None
Flood Zone	None
Hazard	None
Hillside	None
Wetlands	None
Parking District	None
Historic District	None
Overlay Districts	None

BACKGROUND INFORMATION

Project Description – The applicant requests a final plat approval for the Delta Drive Subdivision, an Alternative Residential Subdivision (ARS) creating 15 lots. The proposal would create 14 unit-lots for residential uses and one (1) parent-lot containing the perimeter buffer, privately maintained access road, and other common amenities (15 lots total).

Background – The table below summarizes relevant history for the lot and proposed development.

Item	Summary
SMP2020 0004	In January of 2021, the Planning Commission reviewed and approved the preliminary plat for the proposed alternative residential subdivision (Attachment D).
ARP2020 0001	In January of 2021, the Planning Commission reviewed and approved the preliminary alternative residential plan (Attachment E).
ARF2021 0001	The applicant has applied for the Alternative Residential Subdivision Final Plan Review (ARF2021 0001).

ANALYSIS

Compliance with Title 49 – There have been no changes to the final plat that do not comply with Title 49. The following minor revisions were made to the plat:

- The Unit Lots are now labeled as “Unit Lots” on the plat.

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

- The Unit Lots are now “Unit Lots 1 – 14” and the parent lot is “Lot 15” – this change was made at request of the CBJ Cartographer so that addressing of the Unit Lots will match the legal description of each lot.
- A secondary monument was set at the southeast corner of Unit Lot 7 and the northeast corner of Unit Lot 9.
- Dates for signature lines were revised to reflect recording in 2021.

Preliminary Plat Conditions of Approval -

Condition	Status	Summary
Prior to approval of the final plat, Certification from the CBJ Treasurer is required showing that all real property taxes and special assessments levied against the property for the year of recording have been paid.	☒ Met ☐ Unmet ☐ On-going	See Attachment F
Prior to approval of a final plat, the applicant shall submit a complete set of construction plans for all required improvements to the Community Development Department for review by the Director of Engineering & Public Works for compliance with CBJ 49.35.140.	☒ Met ☐ Unmet ☐ On-going	Construction drawings are included in the application packet (Attachment A). No right-of-way permits are required; the applicant is required to pursue CBJ Building Permits, Grading Permits, and Utility Permits prior to construction of private property.
Prior to approval of the final plat, the developer shall submit a final drainage plan to be approved by CBJ Engineering & Public Works. This drainage plan must be prepared by a State of Alaska licensed engineer in accordance with CBJ 49.35.510.	☒ Met ☐ Unmet ☐ On-going	A drainage and grading plan is included in the application packet (Attachment A). The drainage and grading plan is stamped and signed by a State of Alaska Licensed Engineer.
Prior to approval of the final plat, the applicant shall submit a revised preliminary plat with revisions.	☒ Met ☐ Unmet ☐ On-going	All requested revisions have been made. The revised plat can be found in Attachment A.
Prior to the issuance of the first temporary certificate of occupancy, the master water meter for the development shall be installed by the developer.	☐ Met ☐ Unmet ☒ On-going	
Prior to the issuance of the eleventh (11) temporary certificate of occupancy for the development, access to and within the development shall be paved.	☐ Met ☐ Unmet ☒ On-going	

AGENCY REVIEW

No agency comments were received at time of writing this staff report. The final plat has been endorsed for recording by CBJ Engineering & Public Works and the CBJ GIS Analyst.

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

PUBLIC COMMENTS

CDD conducted a public comment period between April 7 and April 19. Public notice was mailed to property owners within 500 feet of the subject parcel. A public notice sign was also posted on-site two weeks prior to the scheduled hearing. Staff received one public comment. Public comments submitted at time of writing this staff report can be found in Attachment C.

Name	Summary
Rhonda Ward	Ms. Ward questioned if drainage was addressed as part of the subdivision review and expressed concern for existing flooding along the common property line with the Thunder Mountain Mobile Home Park. The grading and drainage plan in Attachment A shows that drainage will be routed through ditches and underground drains to Delta Drive. The grading plan was reviewed and approved by CBJ Engineering and Public Works during review of the preliminary plat (SMP20200004).

FINDINGS

Final plat approval criteria – Per CBJ 49.15.402(f)(3) the Director makes the following findings:

1. *Has the applicant complied with any conditions or plat notes as required in the notice of decision approving the preliminary plat?*

Analysis: No addition analysis needed.

Finding: **Yes.** All conditions of preliminary plat approval have been met or are on-going.

2. *Has the applicant constructed all required improvements or provided a financial guarantee in accordance with CBJ 49.55.010?*

Analysis: There are no required improvements in the public right-of-way that are required before the final plat approval. A Financial guarantee is not required for work on private property.

Finding: **Not Applicable.**

3. *Does the final plat meet the standards set forth in CBJ 49.15.412 for final plats?*

Analysis: No additional analysis needed.

Finding: **Yes.** The final plat complies with CBJ 49.15.415 Final Plat Standards.

RECOMMENDATION

Staff recommends the Planning Commission adopt the Director's analysis and findings and APPROVE the requested final plat. The permit would allow the final plat approval for the Delta Drive Subdivision, an Alternative Residential Subdivision creating 14 unit-lots and 1 parent lot.

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

STAFF REPORT ATTACHMENTS

Item	Description
Attachment A	Application Packet
Attachment B	Abutters Notice and Public Notice Sign
Attachment C	Public Comments
Attachment D	SMP20200004 Preliminary Plat Notice of Decision and Staff Report
Attachment E	ARP20200001 Preliminary ARS Plan Notice of Decision and Staff Report
Attachment F	Certificate of Taxes Paid



DEVELOPMENT PERMIT APPLICATION

NOTE: Development Permit Application forms must accompany all other Community Development Department land use applications.

To be completed by Applicant	PROPERTY LOCATION		
	Physical Address 4090 Delta Drive, Juneau, AK 99801		
	Legal Description(s) (Subdivision, Survey, Block, Tract, Lot) Thunder Mountain Park TR 1A		
	Parcel Number(s) 5B2401620011		
	☐ This property located in the downtown historic district ☐ This property located in a mapped hazard area, if so, which _____		
	Property Owner Bicknell, Inc.		Contact Person David Blommer
	Mailing Address P.O. Box 33517		Phone Number(s) 907-789-5727
	E-mail Address dblommer@bicknellinc.com		
	LANDOWNER/ LESSEE CONSENT Required for Planning Permits, not needed on Building/ Engineering Permits		
	I am (we are) the owner(s) or lessee(s) of the property subject to this application and I (we) consent as follows: A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission. B. I (we) grant permission for officials and employees of the City and Borough of Juneau to inspect my property as needed for purposes of this application.		
X		3/15/21 Date	
X	Landowner/Lessee Signature	Date	
NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours and will attempt to contact the landowner in addition to the formal consent given above. Further, members of the Planning Commission may visit the property before the scheduled public hearing date.			
Applicant SAME		Contact Person SAME	
Mailing Address SAME		Phone Number(s)	
E-mail Address SAME			
X		3/15/21 Date of Application	
	Applicant's Signature	Date of Application	

DEPARTMENT USE ONLY BELOW THIS LINE

This form and all documents associated with it are public record once submitted.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

For assistance filling out this form, contact the Permit Center at 586-0770.

Intake Initials
Date Received 3/18/21

Case Number SMF21-02 / ARF21-01



SUBDIVISION AND DEVELOPMENT PLAN APPLICATION

See subdivision hand-outs for more information regarding the permitting process and the materials required for a complete application.

NOTE: Must be accompanied by a DEVELOPMENT PERMIT APPLICATION form.

PROJECT SUMMARY

An alternative residential subdivision (ARS) of Thunder Mountain Park TR 1A into Delta Drive Subdivision comprised of 14 unit lots and 1 parent lot.

Number of Existing Parcels 1 Total Land Area 1.82 acres Number of Resulting Parcels 15

HAS THE PARCEL BEEN CREATED BY A MINOR SUBDIVISION IN THE PRECEDING 24 MONTHS

☒ NO SMP 2004 ☐ YES Case Number _____

TYPE OF SUBDIVISION OR PLATTING APPROVAL REQUESTED

MINOR DEVELOPMENT

(changing or creating 13 or fewer lots)

- ☐ Preliminary Plat (MIP)
☐ Final Plat (MIF)
☐ Panhandle Subdivision
☐ Accretion Survey
☐ Boundary Adjustment
☐ Lot Consolidation (SLC)
☐ Bungalow Lot Subdivision
☐ Common Wall/Zero Lot Subdivision
☐ Other _____

MAJOR DEVELOPMENT

(changing or creating 14 or more lots)

- ☐ Preliminary Plat (SMP)
☒ Final Plat (SMF)
☐ Preliminary Development Plan – PUD (PDP)
☐ Final Development Plan – PUD (PDF)
☐ Development Plan – ARS (ARP)
☐ Development Plan – ARS (ARF)
☐ Bungalow Lot Subdivision
☐ Common Wall/Zero Lot Subdivision
☐ Other _____

ALL REQUIRED DOCUMENTS ATTACHED

- ☐ Pre-application conference notes SMP 20-04
☐ Narrative including: SMP 20-04
☒ Legal description(s) of property to be subdivided
☒ Existing structures on the land
☒ Zoning district
☒ Density
☒ Access
☐ Current and proposed use of any structures
☒ Utilities available
☒ Unique characteristics of the land or structure(s)

☒ Preliminary Plat checklist SMP 20-04

ARF SMF

-----DEPARTMENT USE ONLY BELOW THIS LINE-----

SUBDIVISION/PLATTING FEES	Fees	Check No.	Receipt	Date
Application Fees	\$ <u>1,950</u>			
Public Notice Sign	\$ <u>150</u>			
Admin. of Guarantee	\$ <u>1,140</u>			
Adjustment	\$ <u>1,140</u>			
Total Fee	\$ <u>2,340</u>			

(ARF)
49,851.00 (8)(6)
\$300 + 60 pgs
rec. 2006

For assistance filling out this form, contact the Permit Center at 586-0770.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

Case Number

SMF 21-002

Date Received

3/18/21

Revised October 2019 - Page 1 of 1

**ALTERNATIVE RESIDENTIAL SUBDIVISION APPLICATION**

See reverse side for more information regarding the permitting process and the materials required for a complete application.

NOTE: Must be accompanied by a DEVELOPMENT PERMIT APPLICATION form.

PROJECT SUMMARY

An alternative residential subdivision (ARS) of Thunder Mountain Park TR 1A into Delta Drive Subdivision comprised of 14 unit lots and 1 parent lot.

TYPE OF ALTERNATIVE RESIDENTIAL SUBDIVISION APPROVAL REQUESTED (please see submittal requirements on reverse)

☐ Alternative Residential Subdivision (ARP)
Preliminary Plan Approval

☒ Alternative Residential Subdivision (ARF)
Final Plan Approval (or Extension)

☐ Amendment to Approved (ARP)
Preliminary Plan*

☐ Amendment to Approved (ARF)
Final Plan*

* Minor amendments will be reviewed by the Director; Major amendments will be reviewed by the Planning Commission.

LEGAL DESCRIPTION(S) OF PROPERTY INVOLVED

Thunder Mountain Park TR 1A

Number of Existing Parcels 1

Total Land Area 1.82 acres

Number of Resulting Parcels 15

PROPOSED USE OF LAND AND BUILDING(S)

Zoning District(s) D-18

Percent Open Space 54%

Right-of-Way Frontage Proposed 58 feet

Percent Buffer 10%

Number of Dwelling Units Proposed 14 units

Density Proposed 8 units per acre

Parking Proposed 28 stalls

Density Bonus ☐ YES ☐ NO

ALL REQUIRED MATERIALS ATTACHED

☒ Complete application per CBJ 49.15.940 (preliminary) or CBJ 49.15.950 (final)

☐ Pre-Application Conference notes

☐ Narrative including:

☐ Current use of land or building(s)

☐ Unique characteristics of land or building(s)

☐ How the proposed project conforms to the Comprehensive Plan and CBJ Title 49 How

☐ the proposed project effects public health, safety, and welfare

☐ How the proposed project is in harmony with the surrounding neighborhood

☐ Preliminary development plan (detailed on page 2)

☐ Density Bonus

☐ Open Space

☐ Stream Setback

☐ Lower Income Households / Workforce Households

☐ Unusual Enhancements

☐ Public Right-of-Way Access

☐ Shared Use Pathways

☐ 5-Star Plus Energy Efficiency

☐ 6-Star Energy Efficiency

☐ High-efficiency Primary Heating Methods

-----DEPARTMENT USE ONLY BELOW THIS LINE-----

This form and all documents associated with it are public record once submitted.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

For assistance filling out this form, contact the Permit Center at 586-0770.

Case Number

Date Received

ARF 21-02

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

Alternative Residential Subdivision Application Instructions

Alternative Residential Subdivision outlined in CBJ 49.15.900

Each application for an Alternative Residential Subdivision is reviewed by the Planning Commission at a public hearing. The permit procedure is intended to provide the Commission the flexibility necessary to make decisions tailored to individual applications. The Commission may stipulate conditions to mitigate external adverse impacts from the proposed use. If it is determined that these impacts cannot be satisfactorily overcome, the permit shall be denied.

Pre-Application Conference: A pre-application conference is required prior to submitting an application. The applicant will meet with City & Borough of Juneau and Agency staff to discuss the proposed development, the permit procedure, and to determine the application fees. To schedule a pre-application conference, please contact the Permit Center at 586-0770 or via email at Permits@juneau.org.

Application: An application for an Alternative Residential Subdivision will not be accepted by the Community Development Department until it is determined to be complete. The items needed for a complete application are:

1. **Forms:** Completed Alternative Residential Subdivision Application and a Development Permit Application forms.
2. **Fees:** The fee is dependent upon the number of residential structures involved. Any development, work or use done without a permit issued will be subject to double fees. All fees are subject to change.
3. **Project Narrative:** A detailed narrative describing the project.
4. **Plans:** outlined in CBJ 49.15.940(b)(2). (Surveyed Plans Required)
 - a. The amount of land for housing, open space, buffer, access, parking, and pedestrian circulation
 - b. The number and types of housing units and proposed density
 - c. The natural features to be protected and hazards to be avoided
 - d. The public, if any, and private services to be provided

Document Format: All materials submitted as part of an application shall be submitted in either of the following formats:

1. Electronic copies;
2. Paper copies 11" X 17" or smaller (larger paper size may be preapproved by the Community Development Department).

Preliminary Plan Approval

Application Review & Hearing Procedure:

Review: The Community Development Department shall determine when the Alternative Residential Subdivision Application is complete and advise the developer. Within 60 days of determining that an application is complete, the Director shall schedule the preliminary plan for a public hearing.

Hearing: All Alternative Residential Subdivision applications must be reviewed by the Planning Commission. The Commission shall review the preliminary plan and approve, approve with conditions, or deny pursuant to 49.15.940.

Public Notice Responsibilities: As part of the Preliminary Plan Approval, proper public notice must be given as outlined in CBJ 49.15.230 which consists of the following:

The Community Development Department will give notice of the pending Planning Commission meeting and its agenda in the local newspaper a minimum of 10-days prior to the meeting. Furthermore, the department will mail abutters notices to all property owners within 500-feet of the project site.

The Applicant will post a sign on the site at least 14 days prior to the meeting. The sign shall be visible from a public right-of-way or where determined appropriate by CDD. Signs may be produced by the Community Development Department for a preparation fee of \$50, and a \$100 deposit that will be refunded in full if the sign is returned within seven days of the scheduled hearing date. If the sign is returned between eight and 14 days of the scheduled hearing \$50 may be refunded. The Applicant may make and erect their own sign. Please speak with the Community Development Department for more information.

Final Plan Approval

After completion of all conditions and Commission approval of the preliminary plan in accordance with the Conditional Use permit procedures, the final plan shall be submitted for review and approval according to the following:

1. An application, fee, and a final plan must be submitted for Commission review.
2. Formation of a homeowners' association, or similar entity, is required, outlined in CBJ 49.15.950(b)(1)-(4).
3. The Commission may approve the final plan if it substantially conforms to the approved preliminary plan and all requirements of this article.

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

Phased Development: An applicant may develop an Alternative Residential Subdivision in phases, provided:

1. The initial application includes a preliminary development plan sufficient to assess the cumulative effects of the entire Alternative Residential Subdivision on the neighborhood and the environment according to the standards in subsection 49.15.940.
2. Each phase shall be so designed and implemented that, when considered with reference to any previously constructed phases but without reference to any subsequent phases, it meets the design standards applicable to the entire Alternative Residential Subdivision. Construction and completion of open space and common facilities serving each phase in an Alternative Residential Subdivision shall proceed at a rate no slower than that of other structures in the phase. No phase shall be eligible for final plan approval until all components of all preceding phases are substantially complete and homeowners' association documents have been approved.
3. Each phase of an Alternative Residential Subdivision shall be reviewed according to the provisions of this chapter then current. Each phase of an Alternative Residential Subdivision shall maintain design continuity with earlier phases. At no point during a phased development shall the cumulative density exceed that established in the approved preliminary plan.

Amendments

The developer of an Alternative Residential Subdivision may request an amendment to an approved preliminary or final Alternative Residential Subdivision plan. The request shall state the reasons for the amendment and shall be submitted in writing to the director, who shall inform the developer within 15 days whether the request shall be processed as a minor amendment or major amendment.

1. A minor amendment is a change consistent with the conditions of the original plan approval and would result in:
 - a. Insignificant change in the outward appearance of the development;
 - b. Insignificant impacts on surrounding properties;
 - c. Insignificant modification in the location or siting of buildings or open space;
 - d. No reduction in the number of parking spaces below that required;
 - e. A delay of no more than one year in the construction or completion schedule for the project or, in the case of a phased project, the phase for which the amendment is requested.
2. All other amendments shall be reviewed by the Commission upon payment of a filing fee and in accordance with the requirements of the original plan approval.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED



March 15, 2021

Ms. Laurel Christian
City and Borough of Juneau
Community Development Department
155 South Seward Street
Juneau, AK 99801

Re: PDC Response to: SMP20200004 V1 NOD Plat Review Comments
Case Number SMP20200004 / ARP20200001
Legal Description: THUNDER MOUNTAIN PARK TR 1A Parcel
No.: 5B2401620011
PDC Project No. 20098JN

Dear Laurel;

The following are responses to the City and Borough of Juneau Planning Commission Notice of Decision comments dated January 25, 2021. We have restated the CBJ review comment with our response below.

1. Prior to approval of the final plat, Certification from the CBJ Treasurer is required showing that all real property taxes and special assessments levied against the property for the year of recording have been paid;

RESPONSE: *This will be complied with by the Applicant.*

2. Prior to approval of a final plat, the applicant shall submit a complete set of construction plans for all required improvements to the Community Development Department for review by the Director of Engineering & Public Works for compliance with CBJ 49.35.140;

RESPONSE: *Final signed construction drawings have previously been submitted for this project.*

3. Prior to approval of the final plat, the developer shall submit a final drainage plan to be approved by CBJ Engineering & Public Works. This drainage plan must be prepared by an Alaskan licensed engineer in accordance with CBJ 49.35.510;

RESPONSE: *Drainage plan was submitted to CBJ for this project with the preliminary plat submittal package. No review comments have been received to date and we assume that the drainage plan has been accepted.*

4. Prior to approval of the final plat, the applicant shall submit a revised preliminary plat

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

Thunder Mountain Park Tract 1A
Parcel Code No.: 5B2401620011 File No.:SMP2020 0004
PDC Project No. 20098JN
March 15, 2021

Should you have any questions, please contact our office at your convenience.

Sincerely

J. Mark Pusich, PE
Principal Civil/Structural Engineer
PDC

P:\2020\20098JN-Bicknell_Delta\1Corrspnd\Agency_CBJ\21y02m12d_Response NOD_SMP20-04.docx

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

Thunder Mountain Park Tract 1A
Parcel Code No.: 5B2401620011 File No.: SMP2020 0004
PDC Project No. 20098JN
March 15, 2021

with the following revisions:

a. Add the following plat note:

- i. ACCESS TO LOTS SHALL BE VIA ACCESS EASEMENTS SHOWN ON THIS PLAT AND IS SUBJECT TO THE REQUIREMENTS IN THE "[private common driveway access, utility, and maintenance agreement – edit title as appropriate]" RECORDED WITH THIS SUBDIVISION.

RESPONSE: *This item has been complied with*

b. Show a five-foot perimeter buffer along the southwest lot line bordering Delta Acres Addition 1 Lot 8.

RESPONSE: *This item has been complied with.*

c. Include bearing labels for:

- i. The eastern lot line of Lot 6
- ii. The lot lines between lots 7 and 8 and 9 and 10

RESPONSE: *This item has been complied with*

d. Per sheet C203, Grading Plan, a drainage easement should be added to the following locations:

- i. Eastern side of the development in the 10-foot perimeter buffer
- ii. Rear of Lot 11;

RESPONSE: *This item has been complied with*

5. Prior to the issuance of the first temporary certificate of occupancy, the master water meter for the development shall be installed by the developer;

RESPONSE: *The Applicant will comply with this request.*

6. Prior to the issuance of the eleventh (11) temporary certificate of occupancy for the development, access to and within the development shall be paved.

RESPONSE: *The Applicant will comply with this request.*

ALASKA

JUNEAU

PROJECT LOCATION

PROJECT LOCATION MAP

500' 0 250' 500' 1000'

SCALE: 1"=500'

C200

C201

C201

SHEET KEY MAP

N.T.S.

DELTA DRIVE
SUBDIVISION

JUNEAU, AK



SHEET
C001

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

GENERAL CONSTRUCTION NOTES

1. CBJ ENGINEERING STANDARD BOOK FOR CIVIL ENGINEERING PROJECTS AND SUBDIVISION IMPROVEMENTS DATED DECEMBER, 2003 ARE MADE A PART OF THIS CONTRACT, WITH CURRENT REVISIONS AS APPLICABLE.
2. LARGE BOULDERS, HARDPAN, STUMPS, LOGS, ORGANICS AND GROUND WATER MAY BE ENCOUNTERED AT VARIOUS DEPTHS DURING EXCAVATION OPERATIONS. THESE MATERIALS SHALL BE DISPOSED OF AS REQUIRED BY THE ENGINEER.
3. GRADES AND ALIGNMENTS SHOWN ON THESE PLANS ARE SUBJECT TO MINOR REVISIONS AS APPROVED BY THE ENGINEER.
4. LOCATION OF WATER SYSTEM IMPROVEMENTS, SANITARY SEWER MANHOLES, STORM DRAIN STRUCTURES, PIPING AND PIPE LENGTHS ARE SUBJECT TO MINOR REVISIONS AS APPROVED BY THE ENGINEER.
5. LOCATIONS OF EXISTING UNDERGROUND SEWER, WATER, TELEPHONE, CABLE TELEVISION, AND POWER UTILITIES SHOWN ON THESE PLANS WERE DERIVED FROM CBJ AS-BUILTS OR FIELD LOCATES. ACTUAL LOCATIONS MAY VARY FROM THOSE SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING, PROTECTING AND MAINTAINING THE UTILITIES THROUGHOUT THE CONSTRUCTION OF THIS PROJECT. ANY DAMAGE RESULTING TO THESE UNDERGROUND UTILITIES DURING CONSTRUCTION SHALL BE PAID FOR BY THE CONTRACTOR AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. CALL "DIAL BEFORE YOU DIG" @ 586-1333 FOR UNDERGROUND UTILITY LOCATES AND 811 ALASKA DIG LINE FOR ACS AND GCI PRIOR TO ANY EXCAVATION ACTIVITIES.
6. CONTRACTOR SHALL ASSURE GARBAGE PICKUP, DAILY MAIL SERVICE, FUEL AND SERVICE DELIVERIES WILL BE UNINTERRUPTED TO ALL RESIDENTS AFFECTED BY THIS PROJECT.
7. PROPERTY LINE LOCATIONS USED IN THESE PLANS WERE DERIVED FROM RECORD PLATS AND DO NOT REPRESENT A SUBDIVISION BOUNDARY SURVEY.
8. ALL SIGN INSTALLATIONS OR RELOCATIONS SHALL BE PERFORMED ACCORDING TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (M.U.T.C.D.) WITH THE ALASKA SUPPLEMENT
9. ALL ITEMS DESIGNATED TO BE REMOVED SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL SITE, EXCEPT AS NOTED IN THE CONTRACT DOCUMENTS.
10. PROVIDE KNOCKOUTS IN PRECAST STORM DRAIN STRUCTURES FOR ALL PIPES SHOWN ON THE PLANS.
11. ONLY HORIZONTAL ELBOW FITTINGS (BENDS) ARE SHOWN ON THE PLANS. ADDITIONAL FITTINGS WILL BE REQUIRED FOR VERTICAL DEFLECTIONS NEAR CONNECTION TO EXISTING PIPES, AND AT OTHER LOCATIONS REQUIRING GRADE CHANGES TO AVOID CONFLICTS.
11. THE CONTRACTOR SHALL NOT STORE MATERIALS OR EQUIPMENT OR OPERATE EQUIPMENT WITH ITS TRACKS OR WHEELS PLACED ON PRIVATE PROPERTY WITHOUT THE WRITTEN APPROVAL OF THE PROPERTY OWNER.
11. THE CONTRACTOR SHALL NOTIFY CBJ WATER UTILITIES OPERATOR LONI VANKIRK (723-4975) OF PROPOSED WATER SERVICE INTERRUPTION AND SUBMIT THE "WATER SYSTEM SPECIAL USE PERMIT" (COSIGNED BY THE ENGINEER) AT LEAST 48-HOURS PRIOR TO SHUTDOWN OR FLUSHING OF MAINLINE WATER PIPE. NO WATER SERVICE INTERRUPTION MAY PROCEED UNTIL THIS APPROVAL IS OBTAINED.
12. CONTRACTOR SHALL REFERENCE ALL EXISTING PROPERTY CORNER MONUMENTS (I.E. BRASS CAP MONUMENTS, REBARS OR CHISELED X'S) PRIOR TO CONSTRUCTION THAT WILL BE DISTURBED DURING HIS WORK, AND REMONUMENT AFTER CONSTRUCTION OPERATIONS. ALL WORK SHALL BE DONE BY, OR UNDER THE DIRECTION OF, AN ALASKA REGISTERED LAND SURVEYOR. ALL EXISTING PROPERTY CORNERS ARE NOT NECESSARILY SHOWN ON THE PLANS.
13. THE PLAN DRAWINGS DO NOT NECESSARILY SHOW ALL TREES AND SHRUBS THAT MAY BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES. NO TREES, SHRUBS OR LANDSCAPING ARE TO BE REMOVED OR DAMAGED, UNLESS SHOWN ON THE DRAWINGS OR DIRECTED BY THE ENGINEER.
14. "JUMPING JACK", OR SIMILAR TYPE COMPACTORS SHALL BE USED FOR COMPACTION WITHIN 18-INCHES OF THE OUTSIDE SURFACE OF ALL WATER VALVE BOXES, CATCH BASINS AND MANHOLES.
15. THE USE OF GROUT AND QUICKSET CEMENT PRODUCTS WITH ADJUSTING RINGS, BRICKS, WOOD, STONES AND OTHER SIMILAR GRADE ADJUSTMENT DEVICES TO SUPPORT CATCH BASIN FRAMES OVER CATCH BASINS AND MANHOLES WILL NOT BE PERMITTED ON THIS PROJECT. SEE CBJ STANDARD SPECIFICATIONS, SECTION 02502 - STORM SEWER MANHOLES, INLETS AND CATCH BASINS AND THE DRAWINGS FOR CATCH BASIN FRAME SUPPORT REQUIREMENTS. SANITARY SEWER MANHOLES SHALL BE ADJUSTED PER CBJ STANDARD SPECIFICATIONS 02402 - SANITARY SEWER MANHOLES AND CLEANOUTS.
16. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ENGINEER APPROVED EROSION CONTROL DEVICES DURING CONSTRUCTION PER CBJ STANDARD SPECIFICATIONS SECTION 01570 REQUIREMENTS.
17. ALL WORK FOR THESE PLANS SHALL BE CONDUCTED IN STRICT ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL LAWS AND STANDARDS.

ABBREVIATIONS

AC	ASBESTOS CEMENT
ACS	ALASKA COMMUNICATIONS SYSTEMS
AEL&P	ALASKA ELECTRIC LIGHT & POWER
APPROX	APPROXIMATE
AST	ABOVEGROUND STORAGE TANK
BC	BACK OF CURB
BLVD	BOULEVARD
BOP	BEGINNING OF PROJECT
CB	CATCH BASIN
CBJ	CITY & BOROUGH OF JUNEAU
CHB	CHORD BEARING
CHL	CHORD LENGTH
C/L	CENTERLINE
CI	CAST IRON
CLR	CLEAR
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
CONT	CONTINUOUS
CPP	CORRUGATED POLYETHYLENE PIPE
CTE	CONNECT TO EXISTING
DI	DUCTILE IRON
DIP	DUCTILE IRON PIPE
DIA	DIAMETER
E	EASTING
EG	EXISTING GRADE
EL	ELEVATION
EOP	END OF PROJECT
EP	EDGE OF PAVEMENT
EXIST	EXISTING
EXP	EXPANSION
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
GCI	GENERAL COMMUNICATION INC.
GV	GATE VALVE
HOPE	HIGH DENSITY POLYETHYLENE
HP	HIGH PRESSURE
IE	INVERT ELEVATION
L	LENGTH
LP	LOW POINT
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
MJ	MECHANICAL JOINT
MTE	MATCH TO EXISTING
N	NORTHING
N/A	NOT APPLICABLE
NFS	NON-FROST SUSCEPTIBLE
NTS	NOT TO SCALE
NVC	NO VERTICAL CURVE
OC	ON CENTER
PC	POINT OF CURVATURE
PERF	PERFORATED
PI	POINT OF INTERSECTION
P/L	PROPERTY LINE
POC	POINT ON CURVE
POL	POINT ON LINE
PP	POWER POLE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
R	RADIUS
ROW	RIGHT-OF-WAY
RP	RADIUS POINT
RT	RIGHT
SDMH	STORM DRAIN MANHOLE
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEANOUT
SSMH	SANITARY SEWER MANHOLE
STA	STATION
STD	STANDARD
SWPPP	STORM WATER POLLUTION PREVENTION PLAN
T	TANGENT
TBG	TOP BACK OF GUTTER
TBM	TEMPORARY BENCH MARK
TC	TOP OF CONCRETE
TOB	TOP OF BANK
TOP	TOP OF PIPE
TYP	TYPICAL
UD	UNDERDRAIN
UON	UNLESS OTHERWISE NOTED
UST	UNDERGROUND STORAGE TANK
VC	VERTICAL CURVE
VERT	VERTICAL
VPI	VERTICAL POINT OF INTERSECTION
W/	WITH

SYMBOLS

EXISTING	PROPOSED	
		PRIMARY MONUMENT
		SECONDARY MONUMENT
		SURVEY SPIKE / MAG NAIL
		TEMPORARY BENCHMARK
		PROPERTY / BOUNDARY LINE
		PROPERTY / BOUNDARY LINE UNSURVEYED
		PROJECT BASELINE
		TOP OF BANK
		TOE OF SLOPE
		WATER GATE VALVE/CURB STOP
		WATER LINE/SERVICE
		SEWER LINE/SERVICE
		WOODEN FENCE
		CHAIN-LINK FENCE
		OVERHEAD ELECTRIC LINE
		ASPHALT PAVEMENT
		TREE LINE
		FIRE HYDRANT
		SANITARY SEWER MANHOLE
		SANITARY SEWER CLEANOUT
		CONCRETE HEADWALL W/ TRASH RACK
		STORM SEWER PIPE
		CATCH BASIN W/ AREA DRAIN
		TELEPHONE PEDESTAL
		CABLE PEDESTAL
		ELECTRICAL PEDESTAL
		POWER POLE WITH LIGHT
		GUY WIRE
		GANG STYLE MAILBOX
		STREET SIGN
		CONIFEROUS TREE
		DECIDUOUS TREE
		BUILDING FOUNDATION

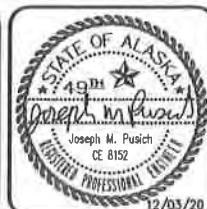
Pre-proof system JN-Biomall_Delta V: 200001cmd0005e jll.ding PLOT: December 03, 2020 at: 3:59pm Micki Minnich

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No.	DATE	REVISION	BY	APPRVD.
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DELTA DRIVE SUBDIVISION

JUNEAU, AK



GENERAL NOTES, ABBREVIATIONS AND SYMBOLS

DATE: Dec 03, 2020
PDC No. 20098JN

SHEET
C002

WATER SERVICE SUMMARY			
LOT No.	STATION & OFFSET	SIZE/TYPE	REMARKS
2	10+95.1, 13.5' LT	1" POLY	SEE NOTE 1
3	11+28.9, 13.5' LT	1" POLY	SEE NOTE 1
4	11+81.8, 13.5' LT	1" POLY	SEE NOTE 1
5	12+15.3, 13.5' LT	1" POLY	SEE NOTE 1
6	12+58.8, 21.4' LT	1" POLY	SEE NOTE 1
7	11+68.0, 13.4' RT	1" POLY	NEW SERVICE
8	12+28.0, 13.5' RT	1" POLY	NEW SERVICE
9	14+71.4, 13.4' RT	1" POLY	NEW SERVICE
10	14+11.4, 13.3' RT	1" POLY	NEW SERVICE
11	15+22.0, 18.1' LT	1" POLY	SEE NOTE 1
12	14+96.0, 13.5' LT	1" POLY	SEE NOTE 1
13	14+62.5, 13.5' LT	1" POLY	SEE NOTE 1
14	14+09.2, 13.5' LT	1" POLY	SEE NOTE 1
15	13+85.5, 21.6' LT	1" POLY	SEE NOTE 1
NOTES: 1. EXISTING FOUNDATION PADS REPORTED TO HAVE 3/4" POLY WATER SERVICES TO EACH UNIT. EXISTING WATER SERVICES MAY BE REUSED IF FOUND TO BE IN SATISFACTORY CONDITION. FLUSHING, DISINFECTION AND PRESSURE TESTING SHALL BE PERFORMED ON THE EXISTING 3/4" POLY WATER SERVICES.			

STORM DRAIN STRUCTURE FRAME & GRATE SUMMARY	
STRUCTURE No.	EAST JORDAN, OLYMPIC FOUNDRY Co., CBJ STANDARD No., OR APPROVED EQUAL
S-1	OLYMPIC FOUNDRY MH34SC

SEWER SERVICE SUMMARY			
LOT No.	STATION & OFFSET	SIZE/TYPE	REMARKS
2	10+82.7, 14.0' LT	4" PVC	SEE NOTE 1
3	11+16.6, 14.0' LT	4" PVC	SEE NOTE 1
4	11+71.4, 14.0' LT	4" PVC	SEE NOTE 1
5	12+02.3, 14.0' LT	4" PVC	SEE NOTE 1
6	12+52.1, 14.0' LT	4" PVC	SEE NOTE 1
7	11+38.0, 14.5' RT	4" PVC	NEW SERVICE
8	11+98.0, 14.5' RT	4" PVC	NEW SERVICE
9	15+01.5, 14.5' RT	4" PVC	NEW SERVICE
10	14+41.4, 14.5' RT	4" PVC	NEW SERVICE
11	15+27.7, 14.0' LT	4" PVC	SEE NOTE 1
12	15+07.9, 14.0' LT	4" PVC	SEE NOTE 1
13	14+77.6, 14.0' LT	4" PVC	SEE NOTE 1
14	14+22.8, 14.0' LT	4" PVC	SEE NOTE 1
15	13+92.1, 14.0' LT	4" PVC	SEE NOTE 1
NOTES: 1. SEWER SERVICE LOCATIONS SHOWN ARE FROM LIMITED AS-BUILT INFORMATION AND WERE NOT FIELD LOCATED. EXISITNG 4" PVC SEWER SERVICES EXIST FOR LOTS 2-6 AND LOTS 11-15. CONTRACTOR SHALL FIELD LOCATE ALL SEWER SERVICES TO CONFIRM FINAL LOCATION FOR NEW SEWER SERVICE CLEANOUT INSTALLATION. STATION & OFFSET ARE GIVEN TO THE CENTER OF THE NEW CLEANOUT LID. IF EXISTING SANITARY SEWER SERVICES FOUND TO BE IN GOOD CONDITION CONTRACTOR MAY KEEP THEM IN SERVICE. 2. CONSTRUCT NEW 4" PVC SEWER SERVICE AND INSTALL NEW CLEANOUT NEAR PROPERTY LINE PER CBJ STANDARD DETAIL 213 AND CONNECT TO EXISTING SEWER SERVICE. 3. ADJUST SEWER SERVICE SLOPE TO PROVIDE MAXIMUM SEPARATION BETWEEN UTILITY CROSSINGS. INSTALL SWEEPS AS REQUIRED UPON APPROVAL OF THE ENGINEER.			

P:\2020\20098\44\Blaiss\Delta Drive\01\0002\00020098.dwg PLOT: December 03, 2020 at: 3:58pm Mistal Minneh

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DELTA DRIVE
SUBDIVISION

JUNEAU, AK



SUMMARY TABLES

DATE: Dec 03, 2020
PDC No. 20098JN
SHEET
C003

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

SURVEY NOTES

1. THE PURPOSE OF THIS SURVEY IS TO PROVIDE A TOPOGRAPHIC DESIGN SURVEY OF THE DELTA DRIVE DEVELOPMENT
2. THE FIELD SURVEYS WERE PERFORMED ON MAY 26-27, 2020.
3. THE SURVEY EQUIPMENT UTILIZED DURING THIS SURVEY WAS TRIMBLE R8-2 GNSS ROVER AND BASE AND A TRIMBLE S-7 ROBOTIC TOTAL STATION UTILIZING STANDARD LASER MEASURING TECHNIQUES.
4. ALL DISTANCES AND DIMENSIONS ARE IN U.S. SURVEY FEET AND REDUCED TO THEIR HORIZONTAL VALUES.
5. CONTROL AND MONUMENT COORDINATES ARE IN AN ASSUMED LOCAL COORDINATE SYSTEM.
6. ELEVATIONS ARE IN AN ASSUMED LOCAL VERTICAL DATUM.
7. CONTOURS ARE SHOWN AT 1-FOOT INTERVALS.
8. ALL UTILITIES WERE LOCATED BY PDC AND ARE BASED ON OBSERVABLE EVIDENCE AND ABOVE GROUND APPURTENANCES AND FIELD RETRACEMENT PERFORMED BY PDC.
9. THIS SURVEY DOES NOT CONSTITUTE A SUBDIVISION AS PER ALASKA STATUTE 40.15.900(5)(a).

EXIST. SSCO	(CO1)
STA 10+04.9,	33.3 LT
EXIST. LID EL=	97.31
SW 8" (OUT) IE=	94.81

EXIST. SSMH	(M1)
STA 08+90.8,	25.9 RT
EXIST. LID EL=	98.50
E 6" (IN) IE=	92.94
NW 8" (OUT) IE=	92.84

NOTES:

1. ROADWAY AND UTILITY INFORMATION SHOWN ON DELTA DRIVE IS PROPOSED FROM CBJ CONTRACT BE21-028 "DELTA DRIVE RECONSTRUCTION." WORK IS SCHEDULED FOR SPRING/SUMMER 2021.
2. EXISTING 6" PVC SEWER MAIN AND 2" POLY PIPE FOR DOMESTIC WATER EXIST ON SITE.

TABLE OF HORIZONTAL CONTROL POINTS

POINT #	NORTHING	EASTING	DESCRIPTION
CP 10	10112.63	10356.34	S-3650, SECONDARY, 1" PLASTIC CAP
CP 11	10014.23	10385.34	MAG NAIL
CP 15	9896.49	10453.74	SURVEY SPIKE
CP 16	10027.18	10545.16	SURVEY SPIKE

TABLE OF VERTICAL CONTROL POINTS

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
FH-1	9983.52	10247.42	100.44'	"X" ON NORTH FIRE HYDRANT BOLT

2022-06-08T14:16:00Z_BuffM_CIG3001cmr2005A/JLung PLOT: December 03, 2020 at: 7:59pm Micki Minisch

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No.	DATE	REVISION	BY	APRVD.
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DELTA DRIVE
SUBDIVISION

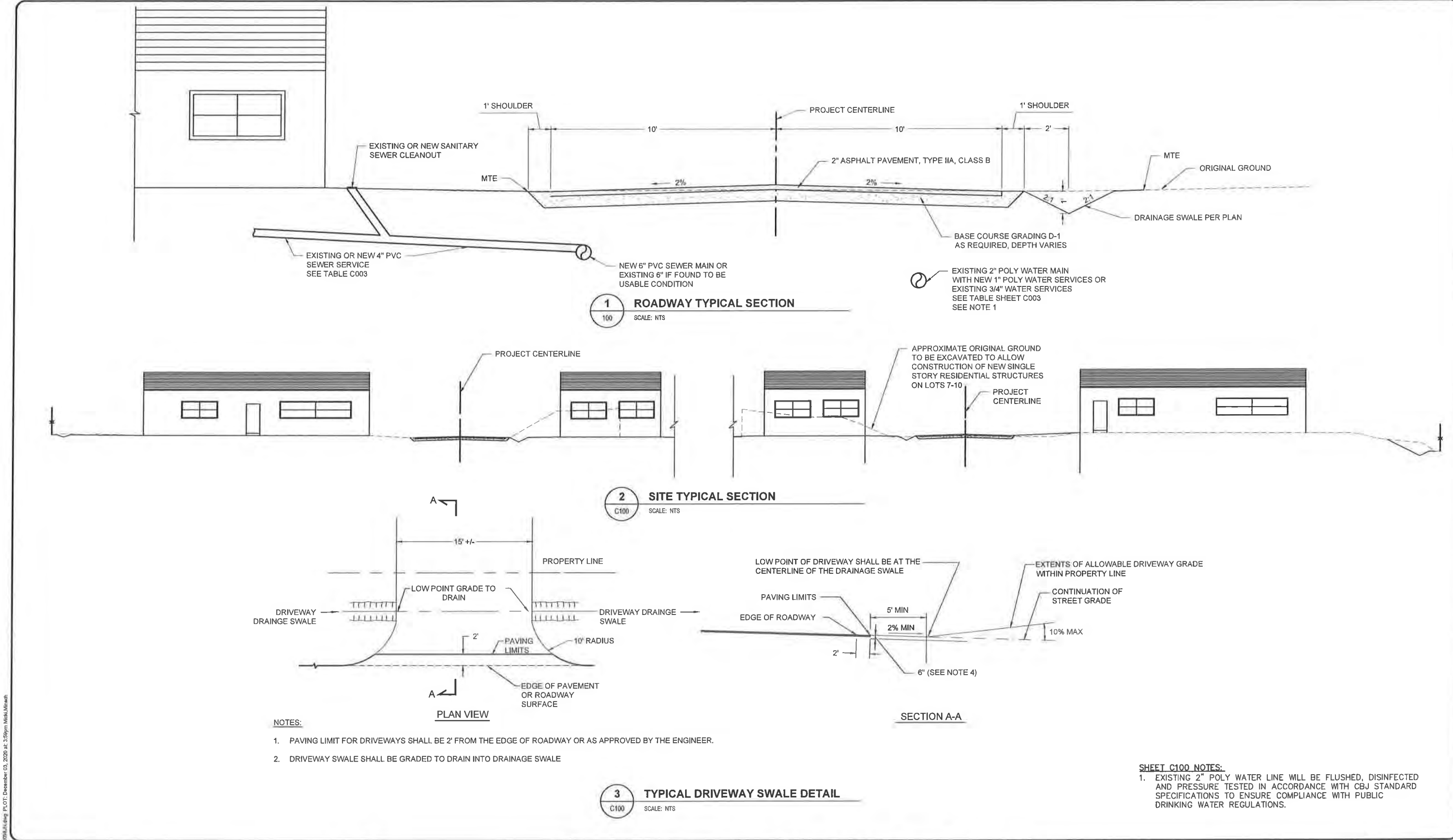
JUNEAU, AK

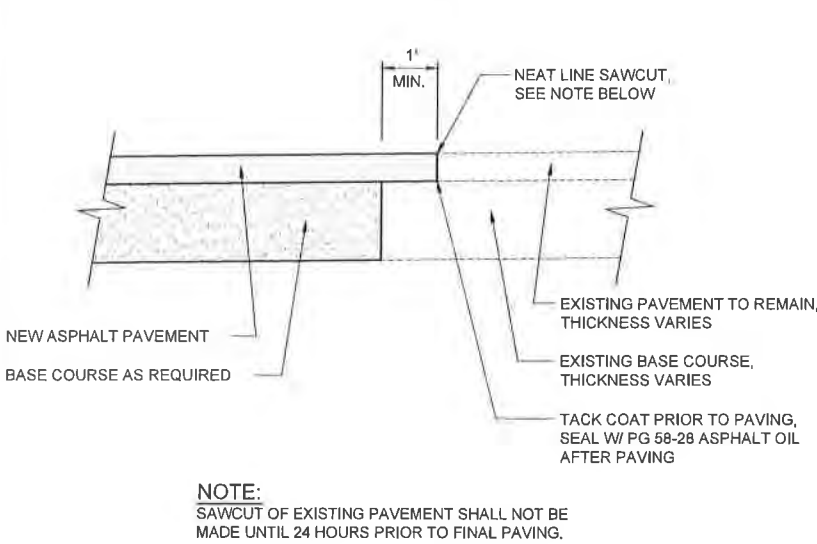


EXISTING SITE CONDITIONS

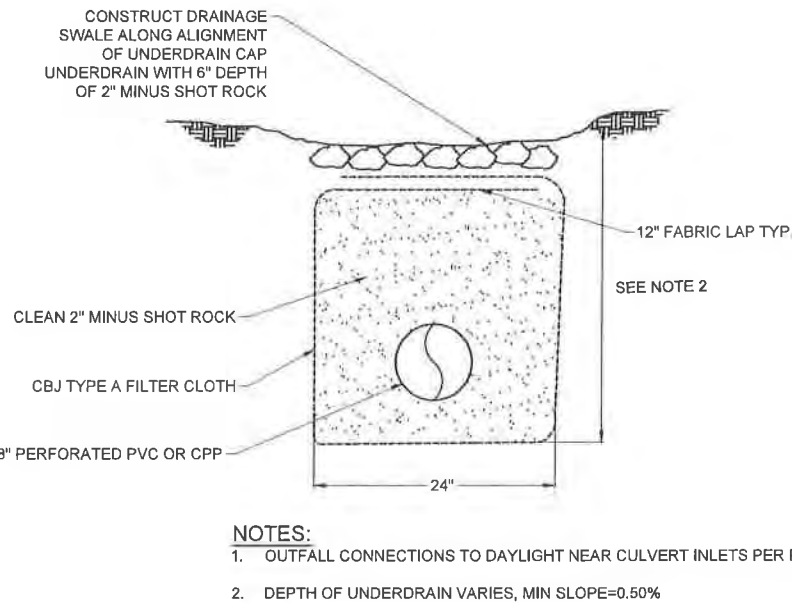
DATE: Dec 03, 2020
PDC No. 20098JN

SHEET
C004

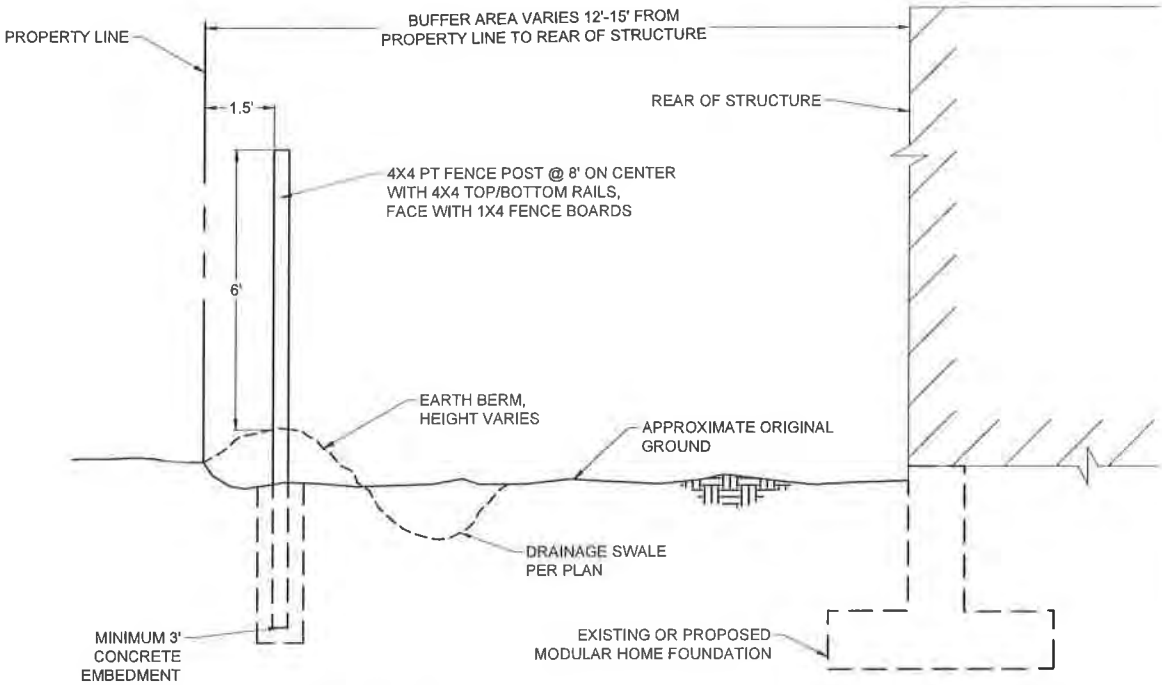




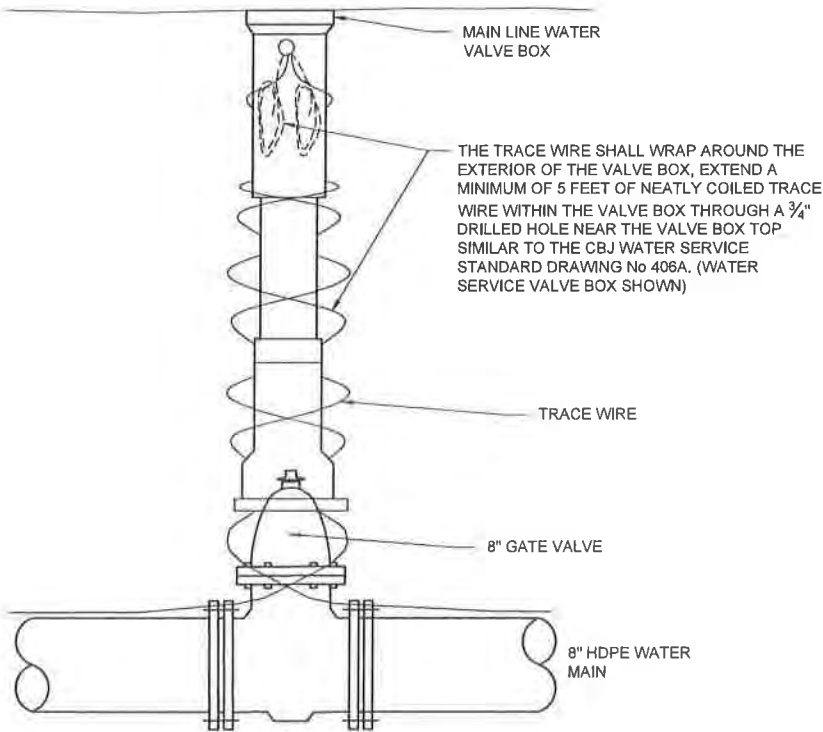
1 PAVEMENT MATCH DETAIL
C101 SCALE: NTS



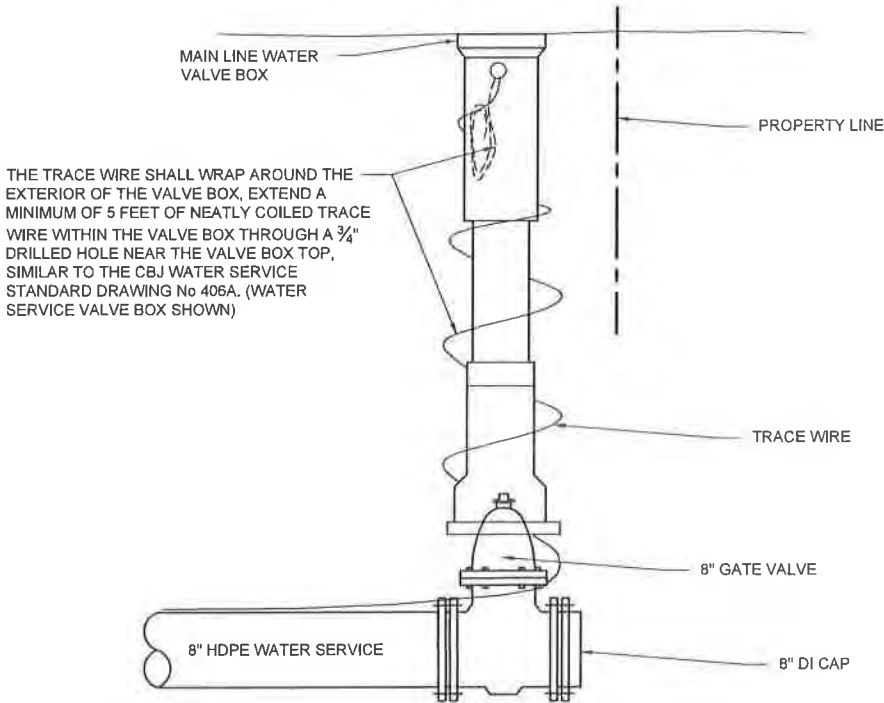
2 8\"/>



3 TYPICAL FENCE AT REAR OF DWELLING
C101 SCALE: 1"=2'



4 MAIN LINE VALVE TRACE WIRE TERMINATION DETAIL
C101 SCALE: NTS



5 WATER SERVICE VALVE TRACE WIRE TERMINATION DETAIL
C101 SCALE: NTS

P:\2020\20098\Delta Drive\Delta Drive C101.dwg PLOT: December 03, 2020 at 3:59pm Mchil Mchil

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DELTA DRIVE
SUBDIVISION

JUNEAU, AK



PDC
ENGINEERS

PLAN • DESIGN • CONSTRUCT

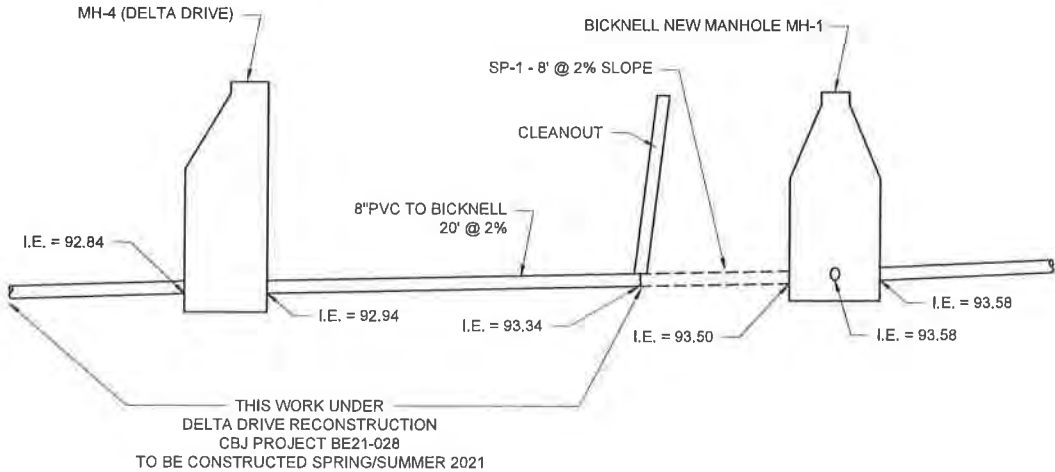
A RESPEC COMPANY

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907.780.6060 | AECC605

CONSTRUCTION DETAILS

DATE: Dec 03, 2020
PDC No. 20098.JN

SHEET
C101



1 SEWER PROFILE CONNECTION
C102 SCALE: NTS

P:\2020\20098\Delta Drive\Delta Drive C100 Layout\20098\Delta Drive C100 Plot December 03, 2020 at 2:51pm Mike Minetti

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No.	DATE	REVISION	BY	APRVD.

DELTA DRIVE
SUBDIVISION

JUNEAU, AK



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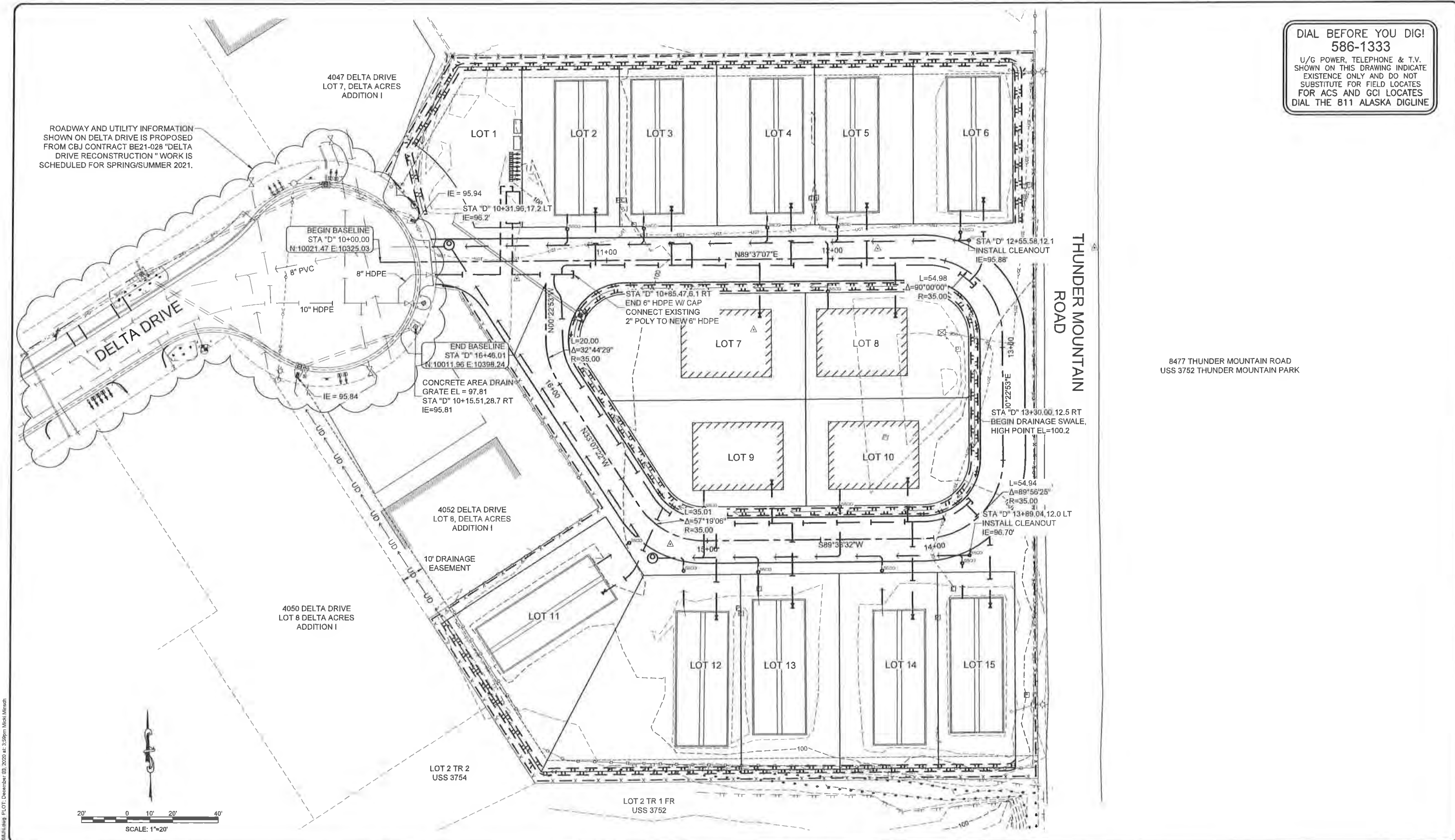
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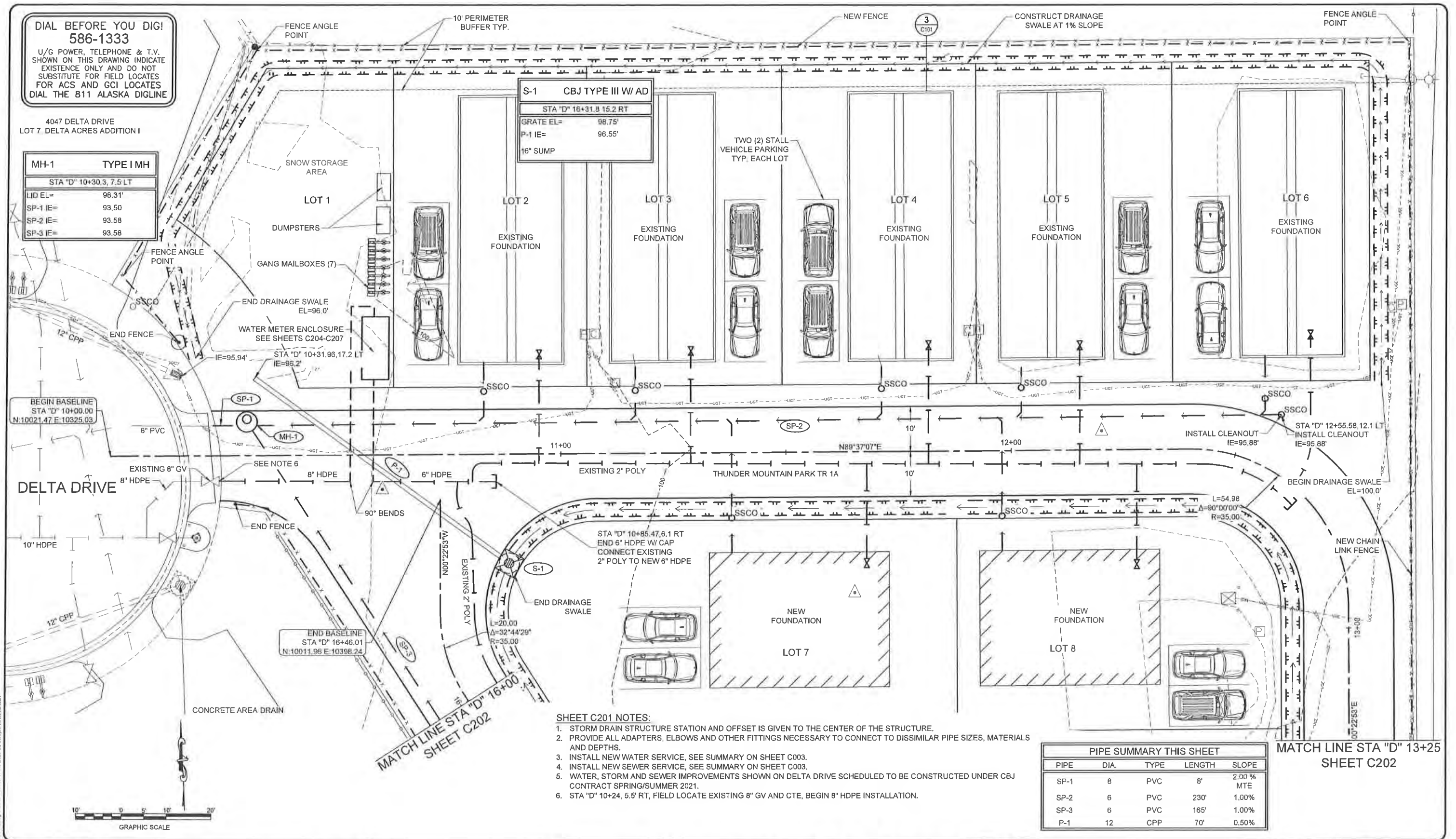
CONSTRUCTION DETAILS

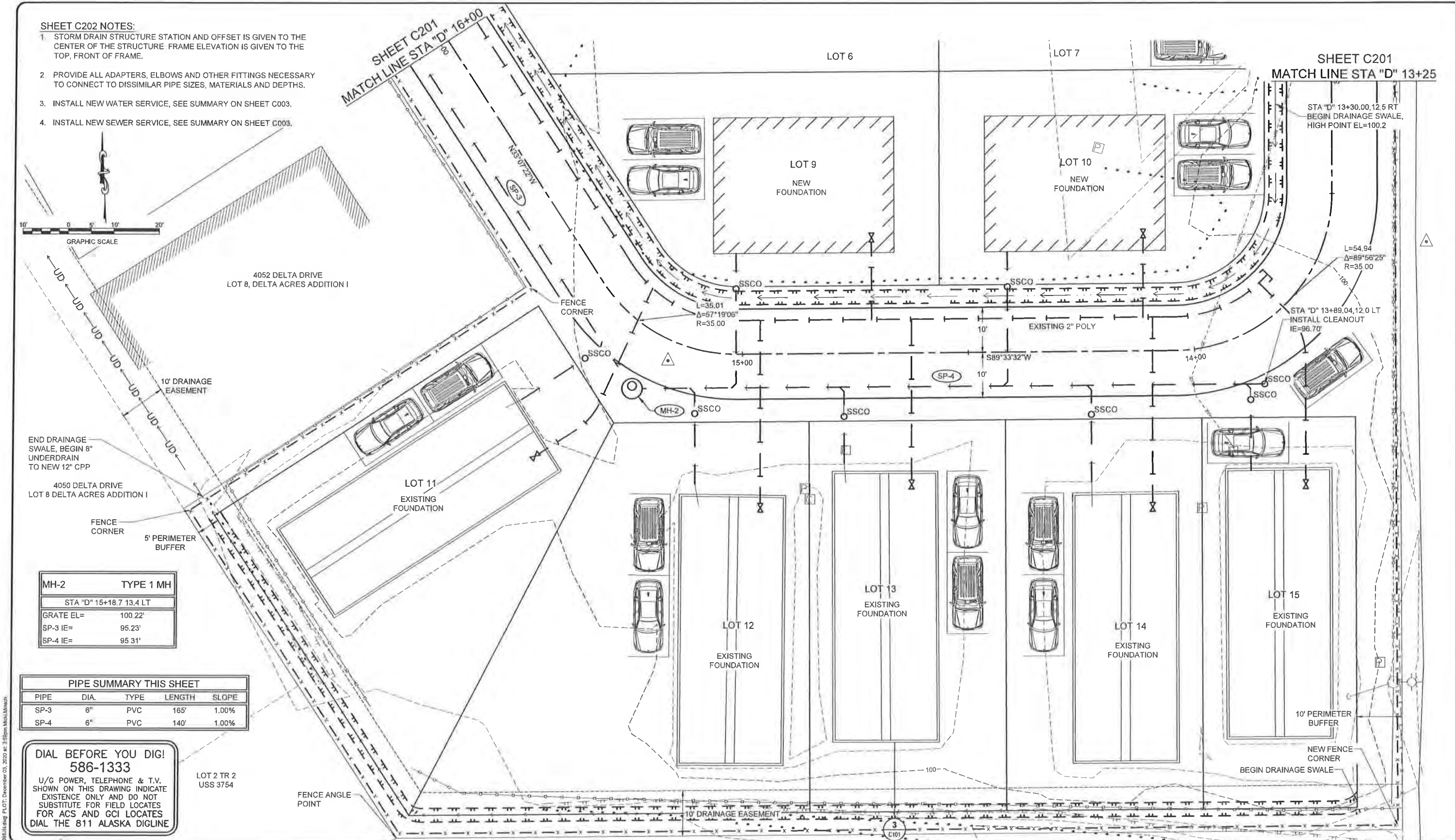
DATE: Dec 03, 2020
PDC No. 20098JN
SHEET
C102



DESIGN MSM	DELTA DRIVE SUBDIVISION JUNEAU, AK				OVERALL SITE PLAN	DATE: Dec 08, 2020
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No.	DATE	REVISION	BY	APRVD.	SHEET	C200

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report





- SHEET C202 NOTES:
- 1. STORM DRAIN STRUCTURE STATION AND OFFSET IS GIVEN TO THE CENTER OF THE STRUCTURE. FRAME ELEVATION IS GIVEN TO THE TOP, FRONT OF FRAME.
 - 2. PROVIDE ALL ADAPTERS, ELBOWS AND OTHER FITTINGS NECESSARY TO CONNECT TO DISSIMILAR PIPE SIZES, MATERIALS AND DEPTHS.
 - 3. INSTALL NEW WATER SERVICE, SEE SUMMARY ON SHEET C003.
 - 4. INSTALL NEW SEWER SERVICE, SEE SUMMARY ON SHEET C003.

MH-2	TYPE 1 MH
STA "D" 15+18.7 13.4 LT	
GRATE EL=	100.22'
SP-3 IE=	95.23'
SP-4 IE=	95.31'

PIPE SUMMARY THIS SHEET				
PIPE	DIA.	TYPE	LENGTH	SLOPE
SP-3	6"	PVC	165'	1.00%
SP-4	6"	PVC	140'	1.00%

DIAL BEFORE YOU DIG!
586-1333
U/G POWER, TELEPHONE & T.V. SHOWN ON THIS DRAWING INDICATE EXISTENCE ONLY AND DO NOT SUBSTITUTE FOR FIELD LOCATES FOR ACS AND GCI LOCATES DIAL THE 811 ALASKA DIGLINE

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No.	DATE	REVISION	BY	APRVD.

DELTA DRIVE SUBDIVISION

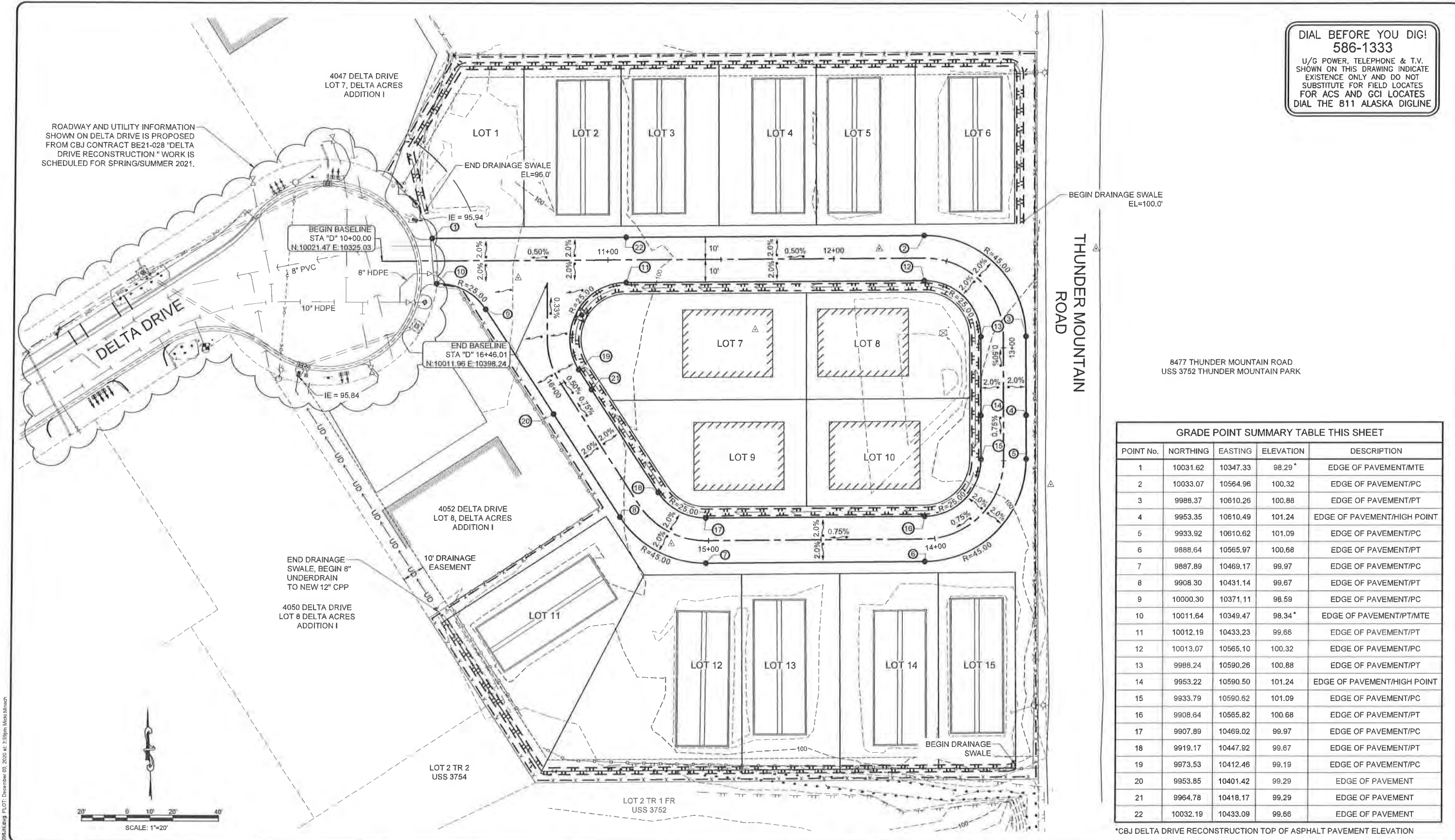
JUNEAU, AK

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SITE & UTILITY PLAN

DATE: Dec 03, 2020
PDC No. 20098JN

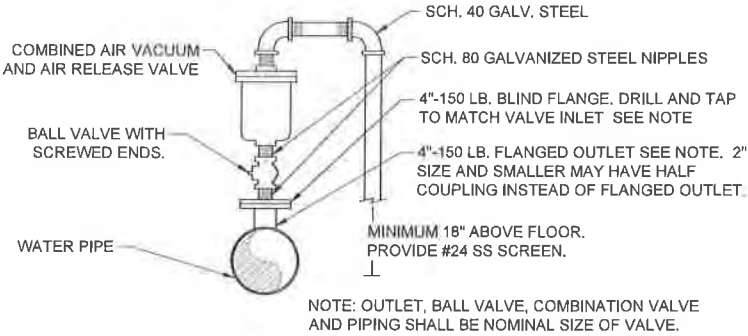
SHEET
C202



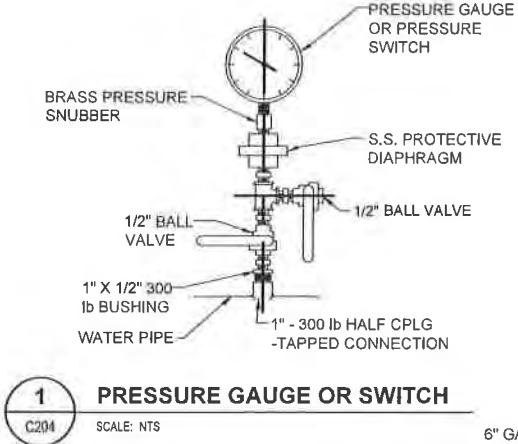
NOTES:

1. CBJ SPECIFICATION 02601 - WATER SYSTEM AND 02602 - VALVES, AND OTHER CBJ STANDARD SPECIFICATIONS APPLY EXCEPT AS MODIFIED BELOW.
2. ALL JOINTS BETWEEN THE CONNECTIONS TO THE MAINLINES ON BOTH SIDES OF THE METER ENCLOSURE SHALL BE RESTRAINED.
3. ALL BOLTS, NUTS AND WASHERS SHALL BE SERIES 300 STAINLESS STEEL.
4. ALL METALLIC VALVES AND FITTINGS SHALL BE FACTORY EPOXY COATED INSIDE AND OUT, 8 MILS MINIMUM.
5. BURIED FITTINGS SHALL BE THRUST BLOCKED PER CBJ STANDARD DETAILS.
6. DIP, HDPE PIPE AND PIPE STANDS ARE PER CBJ SECTION 02602.
7. ALL PIPE AND SPOOL PIECES ABOVE GRADE ARE TO BE FLANGED, WITH 125# FLANGES USE A FLANGE ADAPTOR WITH THE CONNECTION TO HDPE.
8. GATE VALVES SHALL HAVE HAND WHEELS.
9. PRESSURE GAUGE IS TO BE STAINLESS STEEL, GLYCERIN FILLED, WITH A 3/4 OR 4-INCH FACE AND 150 TO 160 PSI PRESSURE RANGE.
10. THE GATE VALVE AHEAD OF THE METER IS TO BE FLXFL, WHILE THE VALVES ON EITHER SIDE OF THE DOUBLE CHECK MAY BE FLVIC. VALVES SHALL COMPLY WITH AWWA C509 OR C515.
11. THE METER SHALL BE A 4-INCH NEPTUNE TRUFLO COMPOUND METER WITH A STRAINER.
12. THE DOUBLE CHECK VALVE SHALL BE A 6-INCH ZURN 350A WITH THE GATE VALVES, OR APPROVED EQUAL. THE DOUBLE CHECK SHALL MEET THE REQUIREMENTS OF AWWA C510 AND BE ASSE AND NSF LISTED.
13. TWO DUPLEX 120-V ELECTRICAL OUTLETS SHALL BE INSTALLED INSIDE THE ENCLOSURE. CONDUIT SHALL RUN FROM THE EXTERIOR MOUNTED DISCONNECT BOX NEAR THE ELECTORAL METER, UNDERGROUND, AND COME UP THROUGH THE CONCRETE SLAB. THE OUTLETS SHALL BE MOUNTED ABOVE THE FLOOR AND LOCATED FOR EASY ACCESS THROUGH THE PANELS.
14. ALL ELECTRICAL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICIAN AND COMPLY WITH ALL APPROPRIATE ELECTRICAL CODES. ANY REQUIRED ELECTRICAL PERMITS SHALL BE OBTAINED. COORDINATE WITH THE LOCAL ELECTRICAL UTILITY AS NECESSARY AND PROVIDE ANY EQUIPMENT THEY REQUIRE TO COMPLETE THEIR SERVICE TO THIS LOCATION.

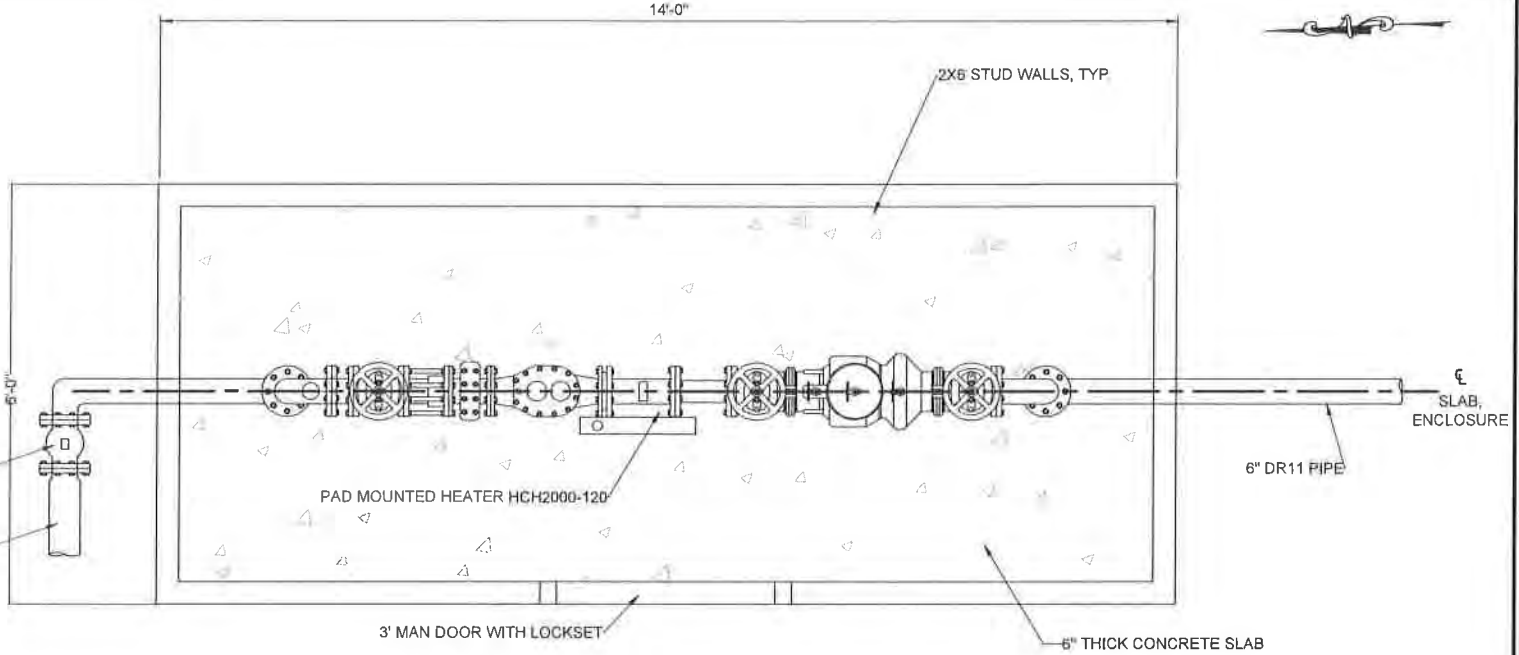
DESIGNATION	COMPONENT DESCRIPTION
A	6X4" DI REDUCING 90° ELBOW W/ TAP AND 1" AIR RELEASE VALVE
B	4" NRS GATE VALVE
C	4" DISMANTLING JOINT, SET TO 8" ±
D	4" METER W/ STRAINER
E	4" DI PIPE SPOOL W/ 1" TAPPED CONNECTION, SAMPLING PORT, AND PRESSURE GAGUE (SEE DETAIL)
F	4" SPOOL PIECE
G	4" DOUBLE CHECK VALVE
H	4" DI 90° BEND



3 AIR/VACUUM & AIRE RELEASE VALVE ASSEMBLY
C204 SCALE: NTS



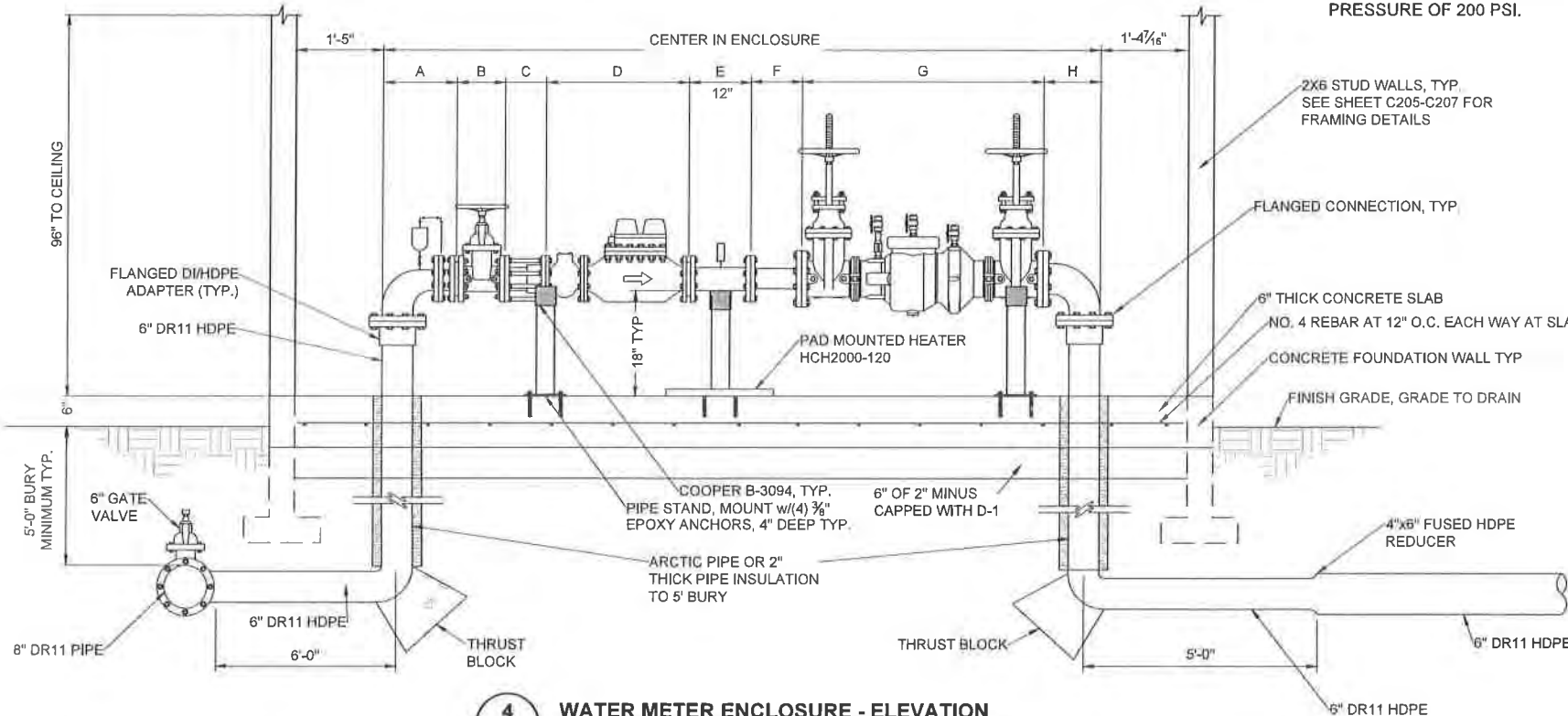
1 PRESSURE GAUGE OR SWITCH
C204 SCALE: NTS



2 WATER METER ENCLOSURE - PLAN
C204 SCALE: NTS

NOTES:

1. ALL JOINTS TO BE FUSED, FLANGED, OR RESTRAINED TO WITHSTAND A MINIMUM PRESSURE OF 200 PSI.



4 WATER METER ENCLOSURE - ELEVATION
C204 SCALE: NTS

DESIGN MSM
DRAWN MSM
CHECK JMP
APPROVED JMP
FILE:

No.	DATE	REVISION	BY	APRVD.

**DELTA DRIVE
SUBDIVISION**

JUNEAU, AK



**WATER METER
ENCLOSURE DETAILS**

DATE: Dec 03, 2020
PDC No. 2009BJN
SHEET
C204

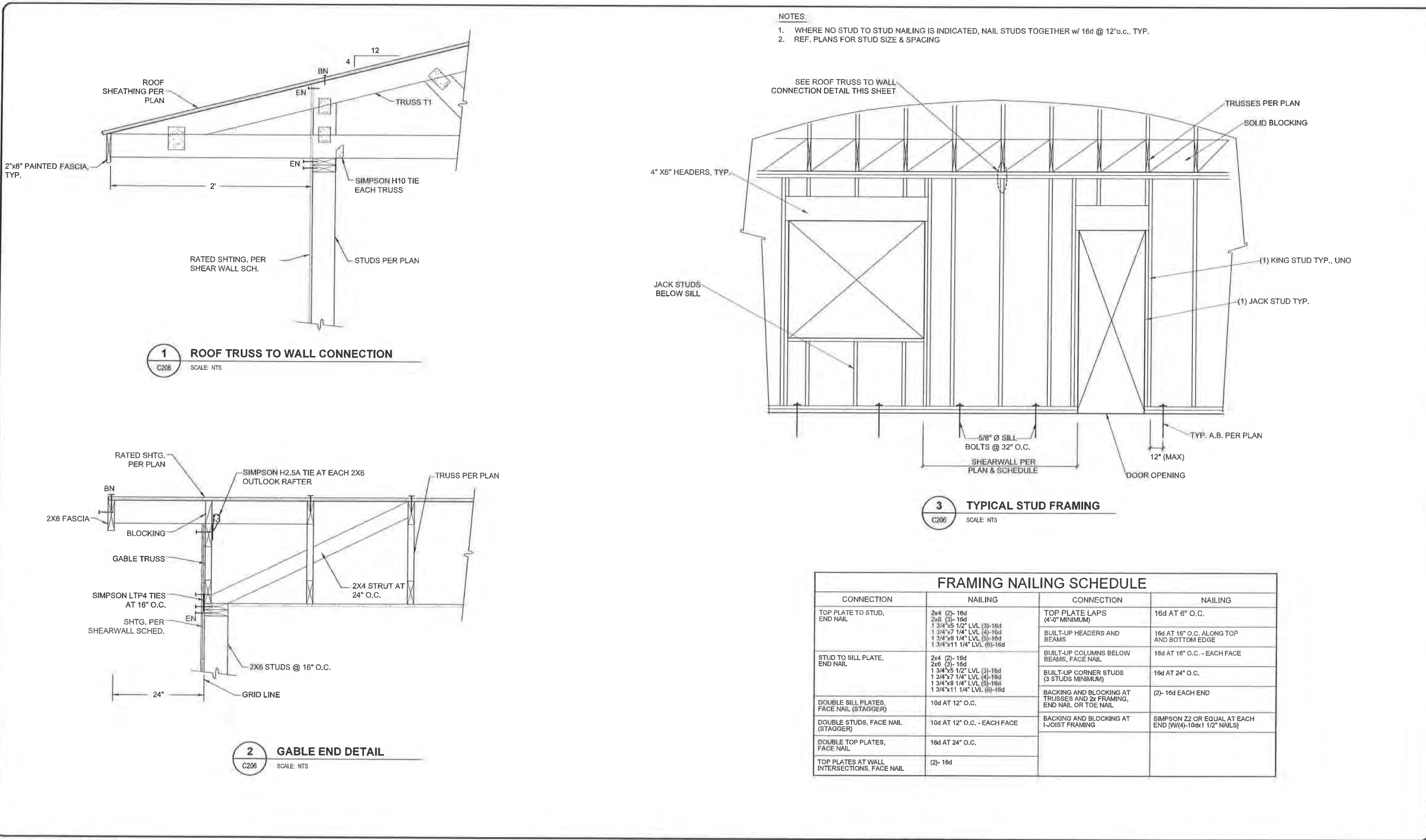


No.	DATE	REVISION	BY	APPRVD.
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WATER METER ENCLOSURE DETAILS

SHEET
C205

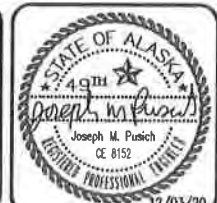


P:\2020\20098\Bicknell\Delta Drive\20098\03_2020\03_2020 at 3:58pm\MSM\Delta Drive

DESIGN	MSM																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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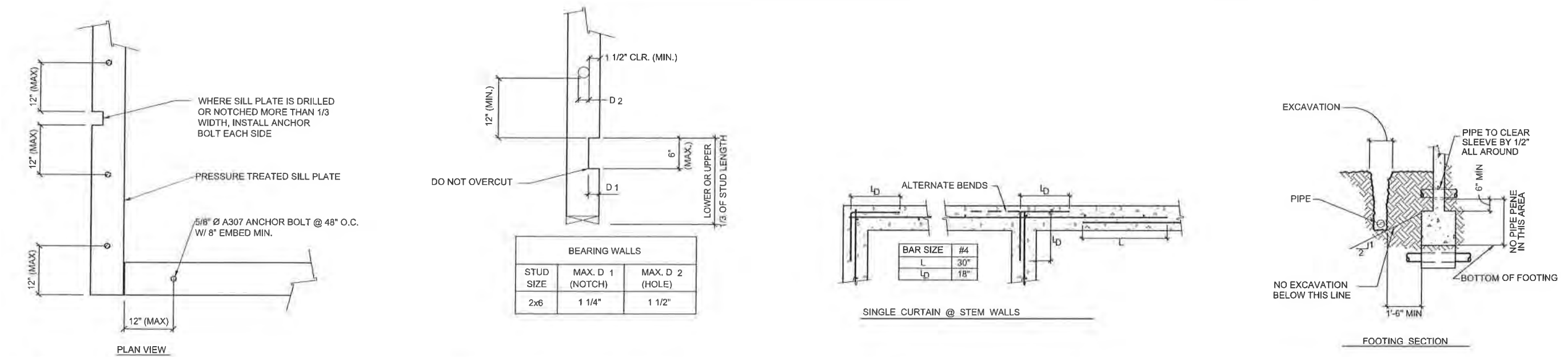
DELTA DRIVE
SUBDIVISION

JUNEAU, AK



WATER METER
ENCLOSURE DETAILS

DATE: Dec 03, 2020
PDC No. 20098JN
SHEET
C206

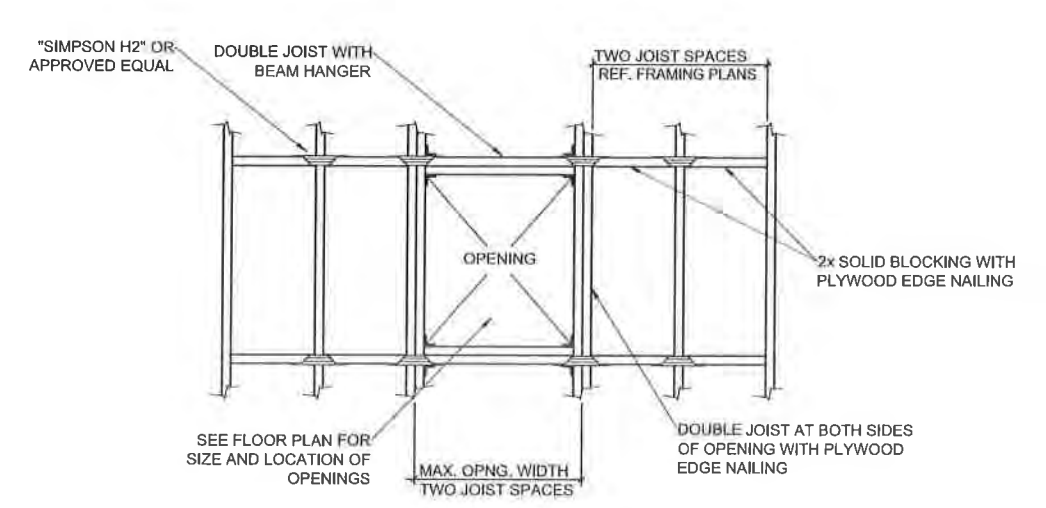


1 SILL PLATE BOLTING TO CONCRETE SCALE: NTS

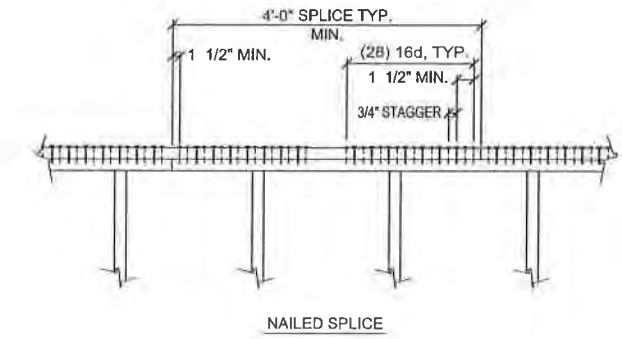
2 ALLOWABLE HOLES AND NOTCHES IN STUDS SCALE: NTS

3 WALL & FOOTING REINFORCING AT CORNERS & INTERSECTIONS SCALE: NTS

4 PIPES & TRENCHES AT FOUNDATIONS SCALE: NTS

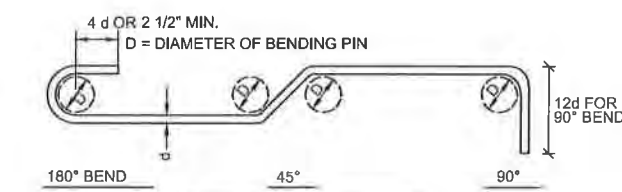


5 TYP. OPENINGS IN FLOORS AND ROOF SCALE: NTS



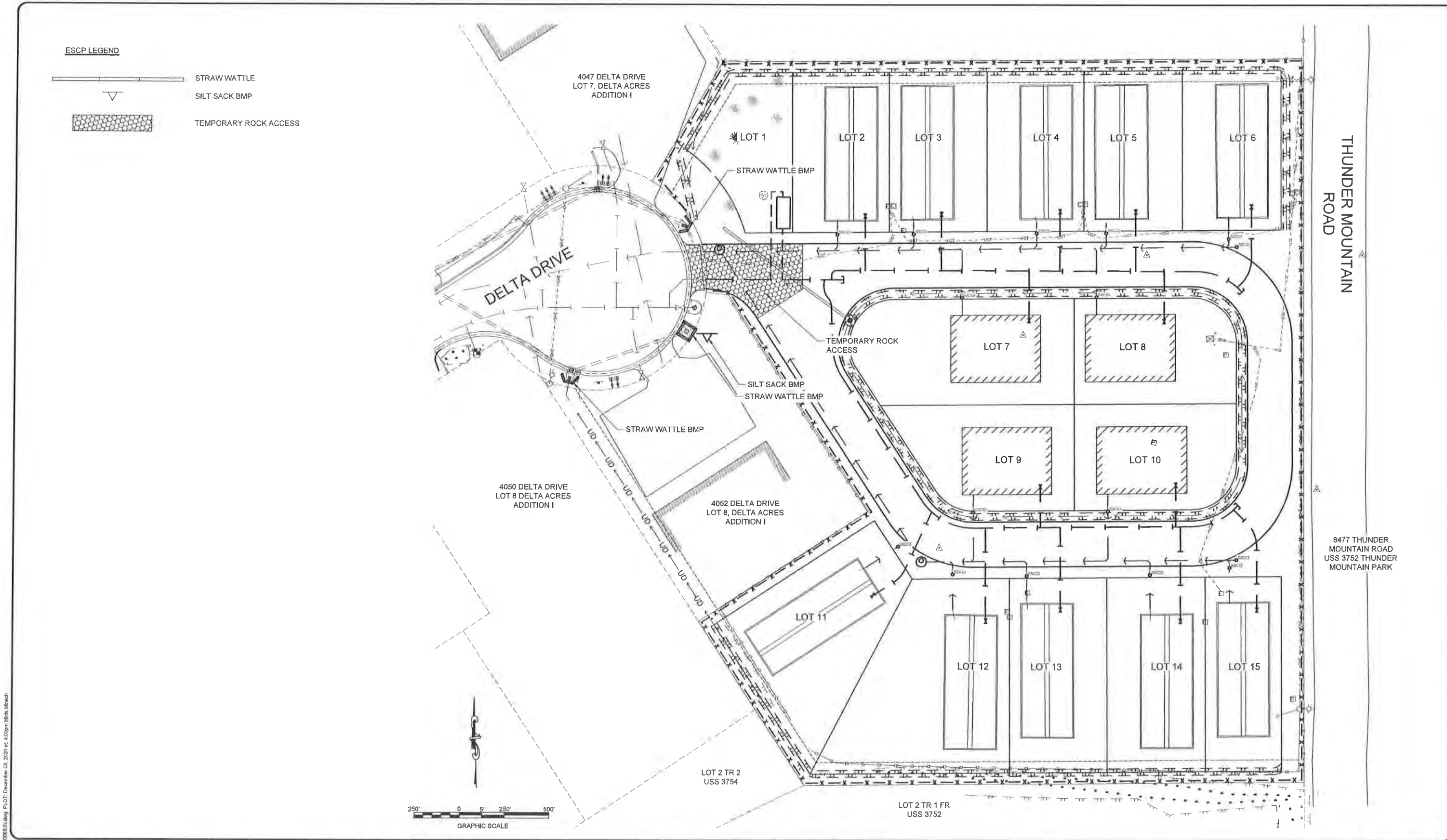
- NOTES:
1. MINIMUM PLATE SPLICE IS (2B) 16d EA. SIDE OF EA. PLATE JOINT. MSTC7B IS ALTERNATE.
 2. STAGGER NAILS IN 2 ROWS.
 3. OCCURS AT TOP PLATES UNDER ROOF.

6 TYPICAL PLATE SPICE SCALE: NTS

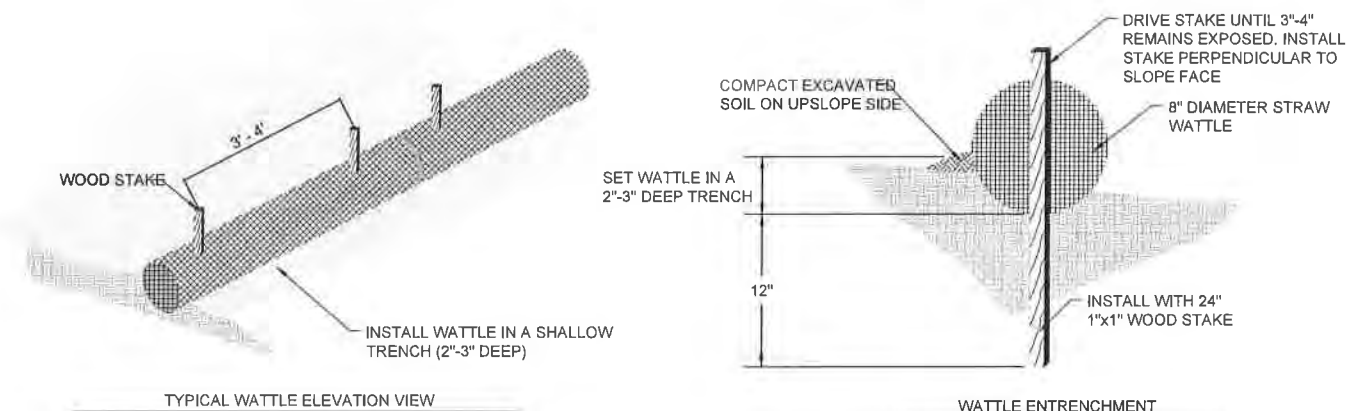


- LEGEND (FOR REINF. BENDS NOT SHOWN TO SCALE)
- DENOTES 90° BEND IN THE PLANE OF THE DWG.
 - DENOTES 90° BEND PERPENDICULAR TO THE PLANE OF THE DWG.
 - DENOTES BEND PERPENDICULAR TO THE PLANE OF THE DWG.
 - DENOTES BEND IN THE PLANE OF THE DWG.
 - DENOTES OFFSET IN THE PLANE OF THE DWG.
- BAR SIZE table: #3 THRU #8, MIN. PIN DIA. (6 BAR DIA.).

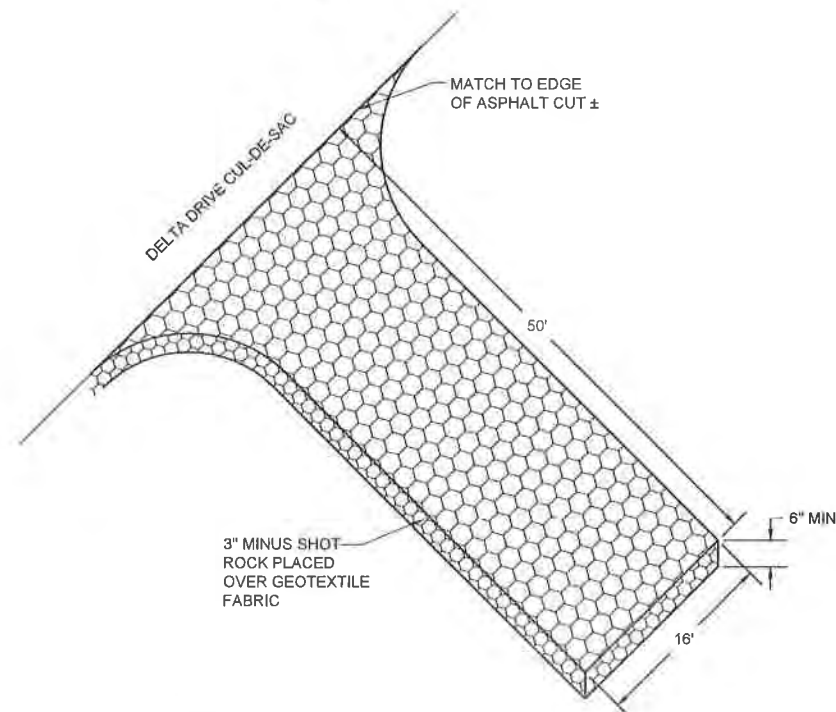
7 STANDARD HOOKS AND BENDS SCALE: NTS



DESIGN MSM	DELTA DRIVE SUBDIVISION JUNEAU, AK				EROSION & SEDIMENT CONTROL PLAN	DATE: Dec 03, 2020
DRAWN MSM						PDC No. 20098JN
CHECK JMP						
APPROVED JMP						
FILE:						
No.	DATE	REVISION	BY	APRVD.	SHEET	C300



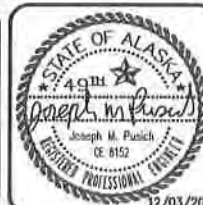
2 STRAW WATTLE IN GROUND DETAIL
C301 SCALE: NTS



- EROSION AND SEDIMENT CONTROL NOTES:**
1. EROSION AND SEDIMENT CONTROL PLANS (E.S.C.P) SHOWN ARE INTENDED AS A MINIMUM LEVEL OF EROSION CONTROL ONLY. THE E.S.C.P IS TO BE USED BY THE CONTRACTOR TO DEVELOP A SITE SPECIFIC STORM WATER POLLUTION PREVENTION PLAN (SWPPP). ALL SEDIMENTATION FROM ON SITE DRAINAGE AND GRADING SHALL BE CONTAINED ON SITE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DAMAGE TO ADJACENT PROPERTIES AND STREAMS FROM CONSTRUCTION RELATED EROSION AND SILTATION DURING THE COURSE OF WORK. ANY DAMAGE RESULTING FROM SUCH EROSION AND SILTATION SHALL BE CORRECTED AT THE EXPENSE OF THE CONTRACTOR.
 2. ALL EROSION CONTROL/SEDIMENTATION CONTROL BARRIERS SHALL BE IN PLACE PRIOR TO COMMENCING EXCAVATION OR FILLING OPERATIONS.
 3. TEMPORARY EROSION CONTROL SYSTEM WILL NOT BE REMOVED UNTIL GERMINATION OF SEEDING AND NO EROSION/SEDIMENT PROBLEMS EXIST.
 4. COLLECTED SEDIMENT WILL BE DISPOSED OF OFF SITE AT AN EXISTING APPROVED DUMPSITE. COLLECTED SEDIMENT MAY NOT BE USED AS EMBANKMENT
 5. DEWATERING OF WORK AREAS BY PUMPING SHALL BE IMPLEMENTED TO REDUCE THE PROJECTS WATER QUALITY IMPACTS. THE PUMP DISCHARGE NEEDS TO BE FILTERED THROUGH SEDIMENT CONTROL DEVICES SUCH AS "DIRTBAG" OR SEDIMENT CONTROL STRUCTURES BEFORE IT CAN ENTER FISH HABITATS AT ANY POINT.
 6. CONTRACTOR SHALL KEEP CLEAN AND DISPOSE OF ALL EARTHEN MATERIAL TRACKED ONTO DELTA DRIVE. THIS SHALL INCLUDE SWEEPING WITH POWER BROOM, VACUUMING AND WATERING ON A DAILY BASIS DURING HAULING ACTIVITY OR MORE FREQUENTLY AS DIRECTED BY THE ENGINEER.

3 **TEMPORARY ROCK ACCESS**
C301 SCALE: NTS

DESIGN	MSM				
DRAWN	MSM				
CHECK	JMP				
APPROVED	JMP				
FILE:		No.	DATE	REVISION	BY APRVD.



DATE: Dec 03, 2020
PDC No. 20098JN
SHEET
C301

GENERAL NOTES

- ALL BEARINGS SHOWN ARE TRUE BEARINGS AS ORIENTED TO THE BASIS OF BEARING AND DISTANCES SHOWN ARE REDUCED TO HORIZONTAL FIELD DISTANCES.
- THE ERROR OF CLOSURE OF THIS SURVEY DOES NOT EXCEED 1:10,000.
- BASIS OF BEARING**
THE BASIS OF BEARING FOR THIS PLAT IS THE BEARING OF S 0° 01' 00" W, AS SHOWN ON PLAT No. 73-17, DATED OCTOBER 29, 1973, BETWEEN THE RECOVERED MONUMENTS, AS SHOWN ON THIS PLAT.
- WHERE RECORD SURVEY COURSES (BEARINGS AND/OR DISTANCES) DIFFER FROM THAT OF ACTUAL FIELD MEASURED AND/OR COMPUTED SURVEY COURSES, THE RECORD BEARING AND/OR DISTANCES IS SHOWN WITHIN PARENTHESIS AND REFERENCED TO A RECORDED PLAT (R#).
- THE PRELIMINARY FIELD SURVEYING WAS PERFORMED ON MAY 26-27, 2020, UTILIZING A TRIMBLE S7 ROBOTICS TOTAL STATION WITH STANDARD LASER RANGING MEASUREMENTS.
- RECORD INFORMATION**
THE RECORD INFORMATION USED FOR THIS SUBDIVISION IS DERIVED FROM THE OFFICIAL PLATS: PLAT No. 73-17, JUNEAU RECORDING DISTRICT, DATED OCTOBER 29, 1973 (R1), PLAT No. 92-18, JUNEAU RECORDING DISTRICT, DATED APRIL 28, 1992 (R2);
- ALL DISTANCES ARE MEASURED IN U.S. SURVEY FEET, AND HAVE BEEN REDUCED TO THEIR HORIZONTAL EQUIVALENTS.
- DOMESTIC WATER AND SANITARY SEWER DISPOSAL PROVIDED BY THE CITY AND BOROUGH OF JUNEAU PUBLIC UTILITIES.
- THIS PLAT CREATES AN ALTERNATE RESIDENTIAL SUBDIVISION PURSUANT TO AND GOVERNED BY THE CITY AND BOROUGH OF JUNEAU LAND USE CODE TITLE 49 ARTICLE IX. EACH OWNER OF A UNIT LOT IS REQUIRED TO, AND SHALL BE, THROUGHOUT THEIR OWNERSHIP, A MEMBER OF THE THUNDER MOUNTAIN VIEWS HOA, INC., REQUIRED TO PAY ASSESSMENTS ASSESSED BY THUNDER MOUNTAIN VIEWS HOA, INC.
- THERE SHALL BE NO DISTURBANCE OR DEVELOPMENT WITHIN THE PERIMETER BUFFER SHOWN ON THIS PLAT, AS REQUIRED BY CBJ 49.15.920(J).
- AT TIME OF RECORDING, UNIT LOTS 2 THROUGH 11 AND 13 THROUGH 15 ARE LIMITED TO ONE SINGLE FAMILY DWELLING. UNIT LOT 12 MAY BE PERMITTED ONE SINGLE FAMILY DWELLING AND ONE ACCESSORY APARTMENT. SEE CBJ 49.15 ARTICLE IX FOR CURRENT REGULATIONS.
- LOT 1, BLANKET EASEMENT, PERIMETER BUFFER, AND DRAINAGE EASEMENTS SHOWN ON THIS PLAT ARE PRIVATE EASEMENTS, AND THE LAND ON WHICH THE PRIVATE EASEMENTS ARE LOCATED IS OWNED AND MANAGE BY THUNDER MOUNTAIN VIEWS HOA, INC.

OWNERSHIP CERTIFICATE

BICKNELL, INC. HEREBY CERTIFIES THAT BICKNELL, INC. IS THE OWNER OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT IT HEREBY ADOPTS THIS PLAT OF SUBDIVISION WITH ITS FREE CONSENT, AND DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS AND OTHER OPEN SPACES TO PUBLIC OR PRIVATE USE AS NOTED:

OWNER: ROSCOE V. BICKNELL, IV
BICKNELL, INC. DATE: 2021

NOTARY ACKNOWLEDGMENT

UNITED STATES OF AMERICA }
STATE OF ALASKA } SS

THIS IS TO CERTIFY THAT ON THIS DAY OF 2021, BEFORE ME, THE UNDERSIGNED A NOTARY PUBLIC IN AND FOR THE STATE OF ALASKA, DULY COMMISSIONED AND SWORN, PERSONALLY APPEARED TO ME KNOWN TO BE THE PERSONS DESCRIBED IN AND WHO EXECUTED THE ABOVE AND FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT THEY SIGNED AND SEALED THE SAME FREELY AND VOLUNTARILY FOR THE USES AND PURPOSES THEREIN MENTIONED. WITNESS MY HAND AND OFFICIAL SEAL THE DAY AND YEAR IN THIS CERTIFICATE FIRST ABOVE WRITTEN.

NOTARY PUBLIC FOR ALASKA

MY COMMISSION EXPIRES:

PLANNING COMMISSION PLAT APPROVAL

I HEREBY CERTIFY THAT THE SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE SUBDIVISION REGULATIONS OF THE CITY AND BOROUGH OF JUNEAU, ALASKA AND THAT SAID PLAT HAS BEEN APPROVED BY THE PLANNING COMMISSION BY PLAT RESOLUTION NO. DATED 2021, AND THAT THE PLAT SHOWN HEREON HAS BEEN APPROVED FOR RECORDING IN THE JUNEAU RECORDING DISTRICT, STATE RECORDERS OFFICE AT ANCHORAGE

CHAIRMAN OF THE PLANNING COMMISSION
CITY AND BOROUGH OF JUNEAU

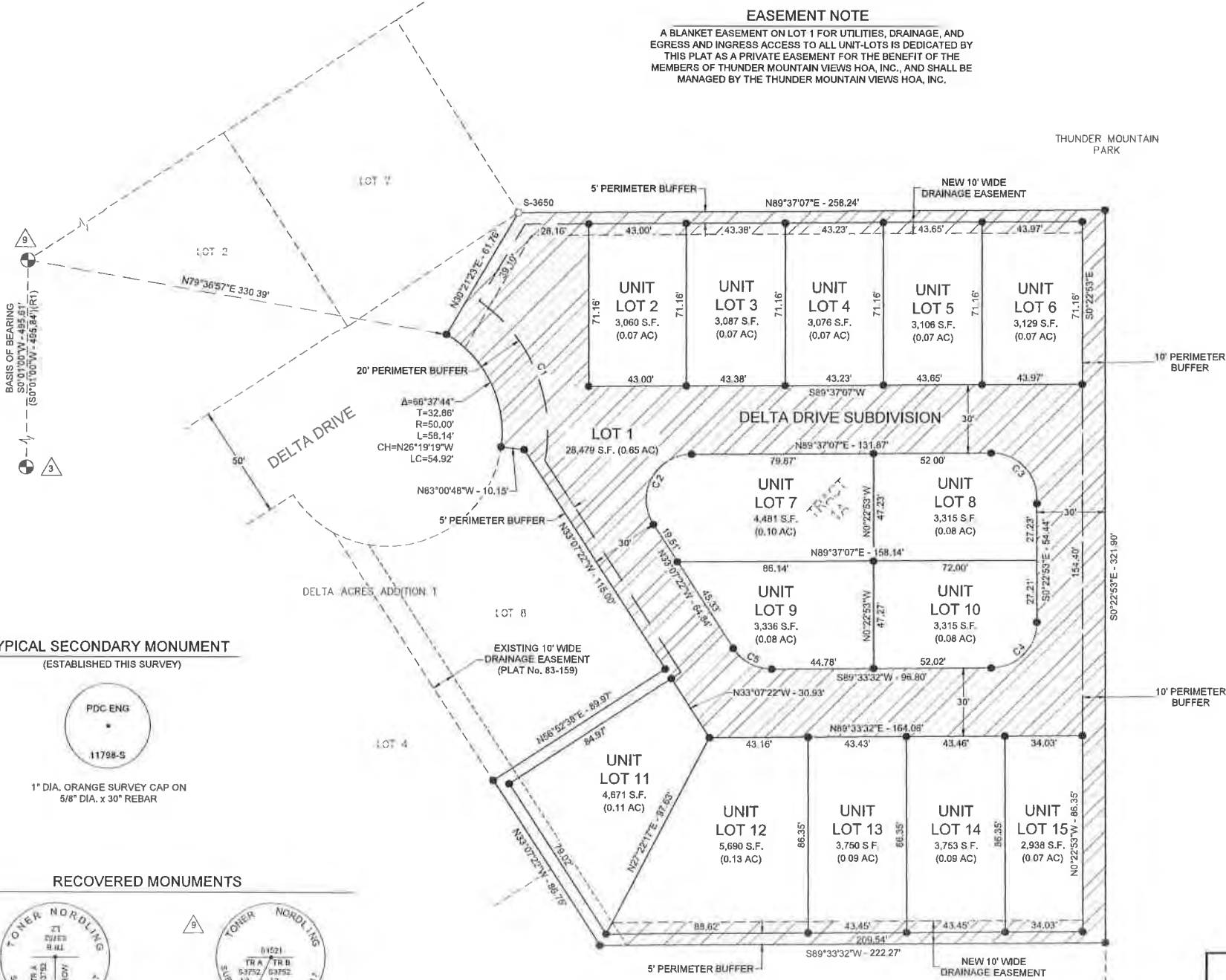
DATED 2021

ATTEST:

MUNICIPAL CLERK
CITY AND BOROUGH OF JUNEAU

EASEMENT NOTE

A BLANKET EASEMENT ON LOT 1 FOR UTILITIES, DRAINAGE, AND EGRESS AND INGRESS ACCESS TO ALL UNIT LOTS IS DEDICATED BY THIS PLAT AS A PRIVATE EASEMENT FOR THE BENEFIT OF THE MEMBERS OF THUNDER MOUNTAIN VIEWS HOA, INC., AND SHALL BE MANAGED BY THE THUNDER MOUNTAIN VIEWS HOA, INC.



TYPICAL SECONDARY MONUMENT
(ESTABLISHED THIS SURVEY)



1" DIA. ORANGE SURVEY CAP ON
5/8" DIA. x 30" REBAR

RECOVERED MONUMENTS



3" BRASS CAP PRIMARY
GOOD CONDITION
1.5' BELOW GRADE



3" BRASS CAP PRIMARY
GOOD CONDITION
FLUSH WITH GRADE



SOURCE: N.O.A.A.
MAGNETIC DECLINATION 19°11'E
NOVEMBER 14, 2017 CHANGING BY
0°17' W/YEAR

CURVE TABLE					
CURVE #	LENGTH	DELTA	RADIUS	CHORD BEARING	CORD DISTANCE
C1	80.21'	65° 38' 55"	70.00'	N22° 43' 05"W	75.89'
C2	42.84'	122° 44' 29"	20.00'	S28° 14' 53"W	35.11'
C3	31.42'	90° 00' 00"	20.00'	N45° 22' 53"W	28.28'
C4	31.40'	89° 56' 25"	20.00'	N44° 35' 20"E	28.27'
C5	20.01'	57° 19' 06"	20.00'	S61° 46' 55"E	19.18'

30' 0 15' 30' 60'
SCALE: 1"=30'



VICINITY MAP
SOURCE: CBJ PROPERTY ATLAS
SCALE: 1"= 500'

LEGEND

- PRIMARY MONUMENT (RECOVERED)
- SECONDARY MONUMENT (RECOVERED)
- SECONDARY MONUMENT (ESTABLISHED)
- SURVEYED LINE
- UNSURVEYED LINE
- EASEMENT LINE
- NEW EASEMENT LINE
- (R1) PLAT No. 73-17, JRD
- (R2) PLAT No. 92-18, JRD
- ACCESS, UTILITY & DRAINAGE EASEMENT
- PERIMETER BUFFER

SURVEYOR'S CERTIFICATE

I, CRAIG O. RANSON, IN MY CAPACITY AS A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF ALASKA, CERTIFY THAT THIS PLAT REPRESENTS THE SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE ACCURACY OF THE SURVEY IS WITHIN THE LIMITS REQUIRED BY TITLE 49 OF THE CODE OF THE CITY AND BOROUGH OF JUNEAU, THAT ALL DIMENSIONS AND RELATIVE BEARINGS ARE CORRECT AND THAT MONUMENTS ARE SET IN PLACE AND NOTED UPON THIS PLAT AS PRESENTED.

DATE: 03/01/21



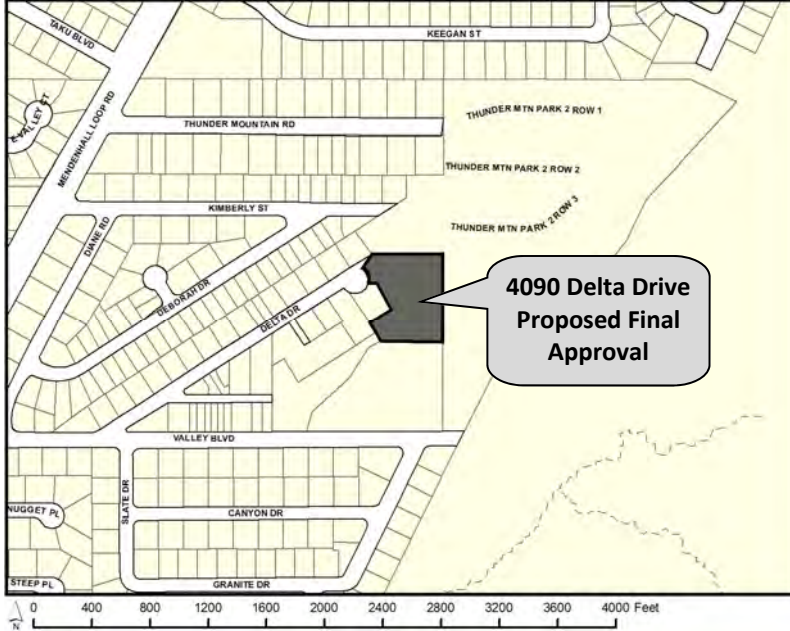
A PLAT OF
DELTA DRIVE SUBDIVISION
A SUBDIVISION OF
THUNDER MOUNTAIN PARK
TRACT 1A
WITHIN U.S. SURVEY NO. 3752
WITHIN CITY AND BOROUGH OF JUNEAU, ALASKA
JUNEAU RECORDING DISTRICT

STATE RECORDER'S OFFICE AT ANCHORAGE

OWNER: BICKNELL, INC.
P.O. BOX 33517
JUNEAU, AK 99803
SURVEYOR: PDC ENGINEERS
9109 MENDENHALL MALL ROAD SUITE 4
JUNEAU, ALASKA 99801
(907) 780-6060
DATE: March 01, 2021 SCALE: 1"=30' SHEET 1 OF 1 PDC PROJ. No. 20098JN

Invitation to Comment

On a proposal to be heard by the CBJ Planning Commission
Your Community, Your Voice



155 S. Seward Street Juneau, Alaska 99801

TO:

An application has been submitted for consideration and public hearing by the Planning Commission for **final subdivision approval for the Delta Drive Subdivision, an Alternative Residential Subdivision creating 14 unit lots and 1 parent lot at 4090 Delta Drive in a D18 zone.**

TIMELINE

Staff Report expected to be posted **Monday, May 3, 2021** at <https://juneau.org/community-development/planning-commission>. Find hearing results, meeting minutes and more here as well.

Now through April 19

Comments received during this period will be sent to the Planner, **Laurel Christian**, to be included as an attachment in the staff report.

April 20 — noon, May 10

Comments received during this period will be sent to Commissioners to read in preparation for the hearing.

HEARING DATE & TIME: 7:00 pm, May 11, 2021

This virtual meeting will be by video and telephonic participation only. To join the Webinar, visit: <https://juneau.zoom.us/j/91520615798>. The Webinar ID is: 915 2061 5798. To join by telephone, call: +1 253 215 8782 or +1 346 248 7799 or +1 669 900 6833 or +1 301 715 8592 or +1 312 626 6799 or +1 929 436 2866 and enter the Webinar ID.

May 12

The results of the hearing will be posted online.

Phone: **(907)586-0715** ♦ Email: pc_comments@juneau.org
Mail: **Community Development, 155 S. Seward St, Juneau AK 99801**

Printed April 7, 2021

Case No.: SMF2021 0002; ARF2021 0001
Parcel No.: 5B2401620011
CBJ Parcel Viewer: <http://epv.juneau.org>

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

Laurel Christian

From: dbloommer@bicknellinc.com
Sent: Monday, April 26, 2021 10:26 AM
To: Laurel Christian
Subject: Notice - Planning commission
Attachments: 20210422_124718.jpg

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Hi Laurel,

See attached photo of the sign at Delta. Let me know if you need anything else.

Thanks,
David



Laurel Christian

From: Laurel Christian
Sent: Monday, April 12, 2021 11:56 AM
To: 'rhondaward1@gmail.com'
Subject: RE: DRAINAGE COMMENTS DELTA DRIVE SUBDIVISION 4090 DELTA DRIVE

Hello Rhonda,

Thank you for reaching out. As part of the subdivision review, the developer is required to submit a drainage plan. Drainage for the new development will be routed to Delta Drive through new drainage swales and underground drains.

I hope this addresses your question/concern, please feel free to reach out with anything further.

Thank you,

Laurel Christian | Planner II

[Community Development Department](#) | City & Borough of Juneau, AK
Location: 230 S. Franklin Street | 4th Floor Marine View Building
Office: 907.586.0761



Fostering excellence in development for this generation and the next.

From: rhonda ward <rhondaward1@gmail.com>
Sent: Saturday, April 10, 2021 2:20 PM
To: PC_Comments <PC_Comments@juneau.org>
Subject: DRAINAGE COMMENTS DELTA DRIVE SUBDIVISION 4090 DELTA DRIVE

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Hello

I am concerned if proper drainage has been address to prevent flooding on the other side of the property closest to Thunder Mountain road. This section has a ditch that already has drainage issues. I hoping that this development will help improve that drainage.

RHonda Ward
3155978805



Planning Commission

(907) 586-0715
PC_Comments@juneau.org
www.juneau.org/plancomm
155 S. Seward Street • Juneau, AK 99801

PLANNING COMMISSION NOTICE OF DECISION

Date: January 25, 2021
File No.: SMP2020 0004

Bicknell, Inc.
Attn: David Blommer
P.O. Box 33517
Juneau, AK 99803

Proposal: Applicant proposes an Alternative Residential Subdivision creating 15 lots
Property Address: 4090 Delta Drive
Legal Description: Thunder Mountain Park Tract 1A
Parcel Code No.: 5B2401620011
Hearing Date: January 12, 2021

The Planning Commission, at its regular public meeting, adopted the analysis and findings listed in the attached memorandum dated December 29, 2020, and late file memorandum (provided January 12, 2021) with amendments and approved the Alternative Residential Subdivision Preliminary Plat for a 15 lot subdivision to be conducted as described in the project description and project drawings submitted with the application (and with the following conditions :)

1. Prior to approval of the final plat, Certification from the CBJ Treasurer is required showing that all real property taxes and special assessments levied against the property for the year of recording have been paid;
2. Prior to approval of a final plat, the applicant shall submit a complete set of construction plans for all required improvements to the Community Development Department for review by the Director of Engineering & Public Works for compliance with CBJ 49.35.140;

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

3. Prior to approval of the final plat, the developer shall submit a final drainage plan to be approved by CBJ Engineering & Public Works. This drainage plan must be prepared by an Alaskan licensed engineer in accordance with CBJ 49.35.510;
4. Prior to approval of the final plat, the applicant shall submit a revised preliminary plat with the following revisions:
 - a. Add the following plat note:
 - i. ACCESS TO LOTS SHALL BE VIA ACCESS EASEMENTS SHOWN ON THIS PLAT AND IS SUBJECT TO THE REQUIREMENTS IN THE “[private common driveway access, utility, and maintenance agreement – edit title as appropriate]” RECORDED WITH THIS SUBDIVISION.
 - b. Show a five-foot perimeter buffer along the southwest lot line bordering Delta Acres Addition 1 Lot 8.
 - c. Include bearing labels for:
 - i. The eastern lot line of Lot 6
 - ii. The lot lines between lots 7 and 8 and 9 and 10
 - d. Per sheet C203, Grading Plan, a drainage easement should be added to the following locations:
 - i. Eastern side of the development in the 10-foot perimeter buffer
 - ii. Rear of Lot 11;
5. Prior to the issuance of the first temporary certificate of occupancy, the master water meter for the development shall be installed by the developer;
6. Prior to the issuance of the eleventh (11) temporary certificate of occupancy for the development, access to and within the development shall be paved.

Attachments: December 29, 2020, memorandum from Laurel Christian, Community Development, to the CBJ Planning Commission regarding ARP2020 0001; and memorandum from Jill Maclean, Director, AICP, Community Development regarding ARP2020 0001 and SMP2020 0004 provided January 12, 2021.

This Notice of Decision does not authorize any construction. Prior to starting any project, it is the applicant’s responsibility to obtain the required building permits.

This Notice of Decision constitutes a final decision of the CBJ Planning Commission. Appeals must be brought to the CBJ Assembly in accordance to CBJ 01.50.030. Appeals must be filed by 4:30 P.M. on the day twenty days from the date the decision is filed with the City Clerk, pursuant to CBJ 01.50.030 (c). Any

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action by the applicant in reliance on the decision of the Planning Commission shall be at the risk that the decision may be reversed on appeal (CBI 49.20.120).

Effective Date: The permit is effective upon approval by the Commission, January 12, 2021.

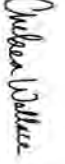
Expiration Date: The permit will expire five (5) years after the effective date, or January 12, 2026, if no Building Permit has been issued and substantial construction progress has not been made in accordance with the plans for which the subdivision permit was authorized or no final plat has been approved. Application for permit extension must be submitted thirty days prior to the expiration date.



January 26, 2021

Michael Levine, Chair
Planning Commission

Date



January 26, 2021

Filed With City Clerk

Date

cc: Plan Review

NOTE: The Americans with Disabilities Act (ADA) is a federal civil rights law that may affect this subdivision. ADA regulations have access requirements above and beyond CBI - adopted regulations. Owners and designers are responsible for compliance with ADA. Contact an ADA - trained architect or other ADA trained personnel with questions about the ADA: Department of Justice (202) 272-5434, or fax (202) 272-5447, NW Disability Business Technical Center (800) 949-4232, or fax (360) 438-3208.



PLANNING COMMISSION STAFF REPORT
MAJOR SUBDIVISION SMP2020-0004
HEARING DATE: JANUARY 12, 2020

(907) 586-0715
 CDD_Admin@juneau.org
 www.juneau.org/CDD
 155 S. Seward Street • Juneau, AK 99801

DATE: December 29, 2020
TO: Michael LeVine, Chair, Planning Commission
BY: Laurel Christian, Planner II *Laurel Christian*
THROUGH: Jill Maclean, Director, AICP

PROPOSAL: Preliminary Plat Approval for the Delta Drive Subdivision, an Alternative Residential Subdivision creating 14 unit-lots and 1 parent lot

STAFF RECOMMENDATION: Approval with conditions

KEY CONSIDERATIONS FOR REVIEW:

- 14 lots will be for single-family dwellings.
- The remaining parent lot will contain the perimeter buffer, privately maintained access road, and other common amenities.
- This approval is subject to ARP20200001.

GENERAL INFORMATION	
Property Owner	Bicknell, Inc.
Applicant	Bicknell, Inc.
Property Address	4090 Delta Drive
Legal Description	Thunder Mountain Park Tract 1A
Parcel Number	5B2401620011
Zoning	D18 Multi-family Residential
Lot Size	79,189 sq. ft.
Water/Sewer	Public
Access	Delta Drive
Existing Land Use	Vacant
Associated Applications	ARP20200001

ALTERNATIVE ACTIONS:

1. **Amend:** require additional conditions, or delete or modify the recommended conditions.
2. **Deny:** deny the permit and adopt new findings for items 1-5 below that support the denial.
3. **Continue:** to a future meeting date if determined that additional information or analysis is needed to make a decision, or if additional testimony is warranted.

ASSEMBLY ACTION REQUIRED:

Assembly action is not required for this permit.

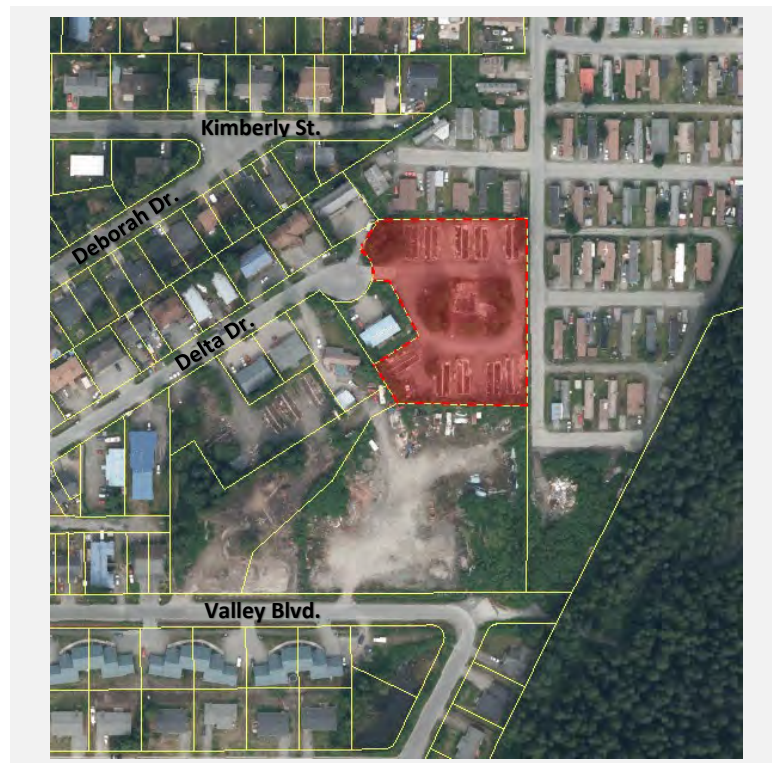
STANDARD OF REVIEW:

- Quasi-judicial decision
- Requires five (5) affirmative votes for approval
- Code Provisions:
 - o 49.15.402
 - o 49.15.411
 - o 49.35
 - o 49.80

The Commission shall hear and decide the case per 49.15.400(a) - Purpose and applicability. *The purpose of this article is to facilitate the subdivision of land to promote the public health, safety, and general welfare of the citizens of the CBJ in accordance with the Comprehensive Plan of the City and Borough of Juneau, Alaska.*

And per 49.15.402(a) *A major subdivision permit is required for subdivisions resulting in 14 or more lots.*

SITE FEATURES AND ZONING



SURROUNDING ZONING AND LAND USES	
North (D18)	Thunder Mountain Mobile Home Park
South (D18)	Vacant
East (D18)	Thunder Mountain Mobile Home Park
West (D18)	Multi-family four-plex

SITE FEATURES	
Anadromous	None
Flood Zone	None
Hazard	None
Hillside	None
Wetlands	None
Parking District	None
Historic District	None
Overlay Districts	None

BACKGROUND INFORMATION

Project Description – The applicant requests a preliminary plat approval for the Delta Drive Subdivision, an Alternative Residential Subdivision (ARS) creating 15 lots. The proposal would create 14 unit-lots for single-family dwellings and one (1) parent-lot containing the perimeter buffer, privately maintained access road, and other common amenities (15 lots total).

A project narrative can be found in Attachment A and the preliminary plat can be found in Attachment B.

Background – Background information includes the process for approval, and relevant development history for the lot. Information on the ARS design may be found in the staff report for ARP20200001.

ARS Process

The ARS process requires two preliminary applications, both of which are being presented at the same Planning Commission meeting.

- This application (SMP20200004) is for approval of the preliminary plat for the ARS. The plat is reviewed for compliance with subdivision code [CBJ 49.15.402].
- Another separate (ARP20200001) is for review of the preliminary plan for the ARS. This application must be acted on first. The plan is reviewed for compliance with applicable ARS code and design guidelines [CBJ 49.15.900].

If the preliminary plan and preliminary plat are approved, the developer may for apply for review of the ARS final plan and ARS final plat. These two applications may be presented at the same public meeting, or separately. The

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purpose of a second review by the Commission is to ensure the final plan conforms with the approved preliminary plan and that any conditions of approval have been met.

Development History

The table below summarizes relevant history for the lot and proposed development.

Item	Summary
Plat History	In 1992, the lot was platted as an expansion of the Thunder Mountain Park (plat no. 92-18). No restrictive plat notes exist for the lot.
Land Use Cases	In 1992, a conditional use permit (CUP) was issued to expand the Thunder Mountain Mobile Home park onto the lot (USE-CU92-01). In 2013, another CUP was issued for a 12-unit apartment building on the lot; this permit expired (USE20130017). The lot is currently vacant.
Building Permits	In 1992, a building permit was issued to place 10 modular homes on permanent concrete foundations (BLD-0747301). In 2013, a demolition permit was issued to remove the modular homes (DMO20130007). The lot currently contains the 10 concrete foundations with no modular structures. The applicant intends to repurpose the foundations.

ANALYSIS

Phasing – The proposed ARS will not be phased.

Minimum Lot Dimensions – Typically, the D18 zoning district requires a 5,000 square foot minimum lot size for a standard lot. Minimum lot dimensional requirements for the unit-lots created through this ARS are waived [49.15.920(c)]. The ARS allows for *unit-lot residential communities in which all or some of the lots do not substantially conform to the minimum requirements for a traditional subdivided lot [49.15.900]*.

The unit-lots created through this subdivision range from approximately 2,000 square feet to 5,000 square feet. The parent-lot measures approximately 28,000 square feet.

Density – Per 49.15.920(e)(1) *The number of dwelling units permitted in the development shall be calculated by multiplying the maximum number of dwelling units per gross acre permitted in the underlying zoning district by the number of acres in the alternative residential subdivision and rounding to the nearest whole number.*

Maximum Dwelling Units Per Acre	Parent Lot Size	Maximum Density	Number of Dwelling Units Proposed
18	79,189 sq. ft. (1.8179 acres)	33 dwelling units	14

Maximum density is not exceeded, as demonstrated in the table above. The applicant has not requested a density bonus. Each unit-lot could accommodate one single-family dwelling. Lot 12 exceeds the minimum lot size for the zoning district and could accommodate a single-family dwelling and accessory apartment [49.15.920(m)]. The following plat note has been added:

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Plat Note: AT TIME OF RECORDING, LOTS 2 THROUGH 11 AND 13 THROUGH 15 ARE LIMITED TO ONE SINGLE FAMILY DWELLING. LOT 12 MAY BE PERMITTED ONE SINGLE FAMILY DWELLING AND ONE ACCESSORY APARTMENT. SEE CBJ 49.15 ARTICLE IX FOR CURRENT REGULATIONS.

Habitat – There are no known anadromous streams or wetlands on the lot.

Hazard Zones - There are no hazard zones on the lot.

LOT DESIGN

Alternative Residential Subdivision Plat Notes – The lots created through this subdivision are part of an ARS. To ensure compliance with CBJ 49.15 Article 9, the following plat notes have been added:

Plat Note: THE LOTS CREATED THROUGH THIS SUBDIVISION ARE AN ALTERNATIVE RESIDENTIAL SUBDIVISION. AT TIME OF PLAT RECORDING DEVELOPMENT OF LOTS, INCLUDING FURTHER SUBDIVISION OR USE, IS SUBJECT TO CBJ 49.15 ARTICLE IX. SEE CITY AND BOROUGH OF JUNEAU LAND USE CODE FOR CURRENT REGULATIONS.

Plat Note: THERE SHALL BE NO DISTURBANCE OR DEVELOPMENT WITHIN THE PERIMETER BUFFER SHOWN ON THIS PLAT, AS REQUIRED BY CBJ 49.15.920(j).

TRAFFIC

Traffic – According to CBJ 49.40.300(a)(2) a traffic impact analysis is not required; the development is not anticipated to generate more than 250 Average Daily Trips (ADTs).

Use	Units	Trips Generated	Total Trips
Single-family Residential	14	9.52 per dwelling	133.28

ACCESS AND PUBLIC IMPROVEMENTS

Access – Per 49.35.250(a), staff has determined that the primary access to the subdivision is Delta Drive. Within the ARS, the development will be served by a privately maintained road extending from Delta Drive. This is allowed per 49.15.920(f), as discussed in the staff report for ARP20200001. An easement for utilities, drainage, and driveway access on the parent lot is dedicated by the plat.

It is recommended the following plat note be added to the plat:

Plat note: ACCESS TO LOTS SHALL BE VIA ACCESS EASEMENTS SHOWN ON THIS PLAT AND IS SUBJECT TO THE REQUIREMENTS IN THE “[private common driveway access, utility, and maintenance agreement – edit title as appropriate]” RECORDED WITH THIS SUBDIVISION.

49.35.240 Table of Roadway Construction Standards – Delta Drive is a CBJ right-of-way constructed to CBJ standards and maintained by CBJ. The Capital Improvement Program (CIP) has designated funds for Fiscal Year 2020/2021 to reconstruct and improve Delta Drive. The plans for the reconstruction include new water and sewer mains, new drainage systems, resurfacing the street, and the addition of sidewalks on one side of the street. These improvements are planned to be completed by CBJ during the summer of 2021 (CSP20200009). Additional improvements by the developer to Delta Drive are not required.

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Within the ARS, the privately maintained access road must be 20 feet in width and paved, and installed by the developer. The development is anticipated to generate 133 ADTs. A 20-foot wide paved roadway is adequate for the trips generated according to the Table of Roadway Construction Standards, see below [49.35.240].

Condition: Prior to the issuance of the first temporary certificate of occupancy, access to and within the development shall be paved.

49.35.240 Table of roadway construction standards excerpt:

<i>ADTs</i>	<i>TIA</i>	<i>Sidewalks</i>	<i>Travel Way Width</i>	<i>Street Lights</i>	<i>ROW Width</i>	<i>Paved</i>	<i>Publically Maintained</i>
<i>0 to 211</i>	<i>No</i>	<i>Not required</i>	<i>20 ft.</i>	<i>At intersection of subdivision streets and external street system.</i>	<i>60 ft. Public ROW*</i>	<i>No, if outside the urban service area</i>	<i>No</i>

*49.15.920(f) allows for a privately maintained access road within the ARS.

Street Lighting – Street lighting is not required within the ARS. Delta Drive currently has street lighting.

Pedestrian Access – Delta Drive currently does not have sidewalks; however, sidewalks on one side of the street are planned through the CIP reconstruction project (CSP20200009). The access road within the ARS is not required to have sidewalks, according to the Table of Roadway Construction Standards [49.35.240].

Utilities – CBJ 49.15.920(g) requires that a master meter is installed on the parent-lot, and each unit-lot must be connected to water and sewer through the master meter. The parent lot is currently connected to public water and sewer. The applicant has submitted preliminary construction drawings showing each new unit-lot will be connected to public utilities through a master meter on the parent lot (Attachment C). The applicant has also submitted a preliminary water-line memo (Attachment D).

Once the preliminary plat is approved, the applicant is required to submit final construction drawings for review by CBJ Engineering & Public Works (E&PW). Because the parent-lot is currently connected to public utilities, additional work is not required before the applicant can receive final plat approval. It will be the responsibility of the Homeowners Association (HOA) to provide water and sewer to each unit-lot prior to the issuance of a Certificate of Occupancy or Temporary Certificate of Occupancy for each structure.

CBJ E&PW has reviewed the preliminary construction drawings and water line memo and finds that the proposed improvements conform to the requirements of Title 49 and can feasibility be constructed (Attachment F).

Condition: Prior to the issuance of the first temporary certificate of occupancy, each dwelling unit shall be connected to public sewer and water, and a master meter for water shall be installed by the developer.

Condition: Prior to approval of a final plat, the applicant shall submit a complete set of construction plans for all required improvements to the Community Development Department for review by the director of Engineering & Public Works for compliance with CBJ 49.35.140.

Plat Note: DOMESTIC WATER AND SANITARY SEWER DISPOSAL PROVIDED BY THE CITY AND BOROUGH OF JUNEAU PUBLIC UTILITIES.

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Drainage – A preliminary drainage report and plan has been submitted, see Attachment C and E. The preliminary drainage plan demonstrates the drainage will be collected into drainage swales and underground storm drains, which connect to the existing drainage systems in Delta Drive. CBJ E&PW has reviewed the preliminary drainage report and construction drawings and finds that the preliminary drainage plan conforms to drainage and water quality requirements (Attachment F).

Condition: Prior to approval of the final plat, the developer shall submit a final drainage plan to be approved by CBJ Engineering & Public Works. This drainage plan must be prepared by an Alaskan licensed engineer in accordance with CBJ 49.35.510.

Fire Code Improvements – According to the CBJ Fire Marshall, the proposed 20-foot-wide access road is adequate for emergency service response. No fire turnaround is required since the access road is a connected loop.

AGENCY REVIEW

CDD conducted an agency review comment period between October 15 and October 31, 2020. Comments from Engineering and Public works and Capital City Fire and Rescue are incorporated into this report. No additional comments were received.

PUBLIC COMMENTS

CDD conducted a public comment period between December 7 and December 21, 2020. Public notice was mailed to property owners within 500 feet of the subject parcel. A public notice sign was also posted on-site two weeks prior to the scheduled hearing. At time of writing this staff report, no public comments were received.

FINDINGS

Major Subdivision Preliminary Plat Approval Criteria - Per CBJ 49.15.402(c)(4), the director makes the following findings on the proposed development:

1. Does the preliminary plat comply with CBJ 49.15.411?

Analysis: No additional analysis needed.

Finding: Yes. With recommended conditions listed below, the preliminary plat complies with preliminary platting requirements listed in CBJ 49.15.411.

2. Will applicable subdivision development standards be met, or can reasonably be met with conditions?

Analysis: The applicant is required to install a privately maintained access road, utilities, and drainage systems.

Finding: Yes. With recommended conditions, applicable subdivision development standards can be reasonably met.

3. Will the proposed subdivision provide suitable building sites for the zoning district?

Analysis: Minimum lot dimensional requirements for the unit-lots created through this ARS are waived [49.15.920(c)]; the applicant has demonstrated adequate building sites are provided for an ARS in the D18 zoning district.

Finding: Yes. The proposed subdivision provides building sites suitable for the D18 zoning district.

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4. Will the proposed street names be unique or continuations of existing streets?

Analysis: No new street names are proposed. The CDD GIS Analyst will assign addresses from Delta Drive; the privately maintained street functions as an extension of Delta Drive.

Finding: Not applicable.

5. Has the director of Engineering and Public Works reviewed the application and determined that:

(i) The subdivision can be constructed to conform to applicable drainage and water quality requirements;

(ii) The streets, pioneer paths, and pedestrian ways as proposed accommodate anticipated traffic, align with, and, where appropriate, connect with streets and pedestrian ways serving adjacent properties;

(iii) Any proposed improvements conform to the requirements of this Title 49 and can be feasibly constructed; and,

(iv) Where public sewer is not required, the applicant has shown that soils are suitable for individual on-lot wastewater treatments and disposal or has shown the feasibility of alternative methods of wastewater disposal and treatment.

Analysis: CBJ E&PW has submitted a memorandum that demonstrates the above criteria can reasonably be met (Attachment F).

Finding: Yes. CBJ E&PW has reviewed the proposed subdivision application and supplemental materials, and finds the above criteria can be met.

RECOMMENDATION

Staff recommends the Planning Commission adopt the Director's analysis and findings and **APPROVE** the preliminary plat for the Delta Drive Subdivision, an Alternative Residential Subdivision creating 14 unit-lots and one (1) parent lot. This permit would allow the applicant to submit for the final plat.

This approval is subject to the following conditions:

1. Prior to approval of the final plat, Certification from the CBJ Treasurer is required showing that all real property taxes and special assessments levied against the property for the year of recording have been paid.
2. Prior to approval of a final plat, the applicant shall submit a complete set of construction plans for all required improvements to the Community Development Department for review by the director of E&PW for compliance with CBJ 49.35.140.
3. Prior to approval of the final plat, the developer shall submit a final drainage plan to be approved by CBJ Engineering & Public Works. This drainage plan must be prepared by an Alaskan licensed engineer in accordance with CBJ 49.35.510.
4. Prior to approval of the final plat, the applicant shall submit a revised preliminary plat with the following revisions:
 - a. Add the following plat note:

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- i. ACCESS TO LOTS SHALL BE VIA ACCESS EASEMENTS SHOWN ON THIS PLAT AND IS SUBJECT TO THE REQUIREMENTS IN THE “[private common driveway access, utility, and maintenance agreement – edit title as appropriate]” RECORDED WITH THIS SUBDIVISION.
 - b. Show a five-foot perimeter buffer along the southwest lot line bordering Delta Acres Addition 1 Lot 8.
 - c. Include bearing labels for:
 - i. The eastern lot line of Lot 6
 - ii. The lot lines between lots 7 and 8 and 9 and 10
 - d. Per sheet C203, Grading Plan, a drainage easement should be added to the following locations:
 - i. Eastern side of the development in the 10-foot perimeter buffer
 - ii. Rear of Lot 11
5. Prior to the issuance of the first temporary certificate of occupancy, each dwelling unit shall be connected to public sewer and water, and a master meter for water shall be installed by the developer.
6. Prior to the issuance of the first temporary certificate of occupancy for the development, access to and within the development shall be paved.

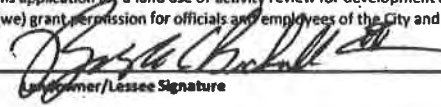
STAFF REPORT ATTACHMENTS

Item	Description
Attachment A	Application Packet
Attachment B	Preliminary Plat and Closure Report
Attachment C	Preliminary Construction Drawings
Attachment D	Preliminary Water Memo
Attachment E	Preliminary Drainage Report
Attachment F	Memorandum from CBJ Engineering & Public Works
Attachment G	Abutters Notice and Public Notice Sign Photo



DEVELOPMENT PERMIT APPLICATION

NOTE: Development Permit Application forms must accompany all other Community Development Department land use applications.

To be completed by Applicant	PROPERTY LOCATION		
	Physical Address 4090 Delta Drive, Juneau, AK 99801		
	Legal Description(s) (Subdivision, Survey, Block, Tract, Lot) Thunder Mountain Park TR 1A		
	Parcel Number(s) 5B2401620011		
	☐ This property located in the downtown historic district ☐ This property located in a mapped hazard area, if so, which _____		
	LANDOWNER/ LESSEE		
	Property Owner Bicknell, Inc.	Contact Person David Blommer	
	Mailing Address P.O. Box 33517	Phone Number(s) 907-789-5727	
	E-mail Address dblommer@bicknellinc.com		
	LANDOWNER/ LESSEE CONSENT Required for Planning Permits, not needed on Building/ Engineering Permits		
I am (we are) the owner(s) or lessee(s) of the property subject to this application and I (we) consent as follows: A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission. B. I (we) grant permission for officials and employees of the City and Borough of Juneau to inspect my property as needed for purposes of this application.			
X  Landowner/ Lessee Signature		10/8/20 Date	
X _____ Landowner/ Lessee Signature		_____ Date	
NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours and will attempt to contact the landowner in addition to the formal consent given above. Further, members of the Planning Commission may visit the property before the scheduled public hearing date.			
APPLICANT If the same as Landowner, enter SAME			
Applicant SAME	Contact Person SAME		
Mailing Address SAME	Phone Number(s)		
E-mail Address SAME			
X _____ Applicant's Signature		_____ Date of Application	

DEPARTMENT USE ONLY BELOW THIS LINE

RECEIVED

OCT 12 2020

PERMIT CENTER/CDD

This form and all documents associated with it are public record once submitted.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

For assistance filling out this form, contact the Permit Center at 586-0770.

Intake Initials 
Case Number Smp20200004
Date Received 10/12/20



SUBDIVISION AND DEVELOPMENT PLAN APPLICATION

See subdivision hand-outs for more information regarding the permitting process and the materials required for a complete application.

NOTE: Must be accompanied by a DEVELOPMENT PERMIT APPLICATION form.

PROJECT SUMMARY

An alternative residential subdivision (ARS) of Thunder Mountain Park TR 1A into Delta Drive Subdivision comprised of 15 unit lots and 1 parent lot.

Number of Existing Parcels 1 Total Land Area 1.82 acres Number of Resulting Parcels 16

HAS THE PARCEL BEEN CREATED BY A MINOR SUBDIVISION IN THE PRECEDING 24 MONTHS

☐ NO

☐ YES Case Number _____

TYPE OF SUBDIVISION OR PLATTING APPROVAL REQUESTED

MINOR DEVELOPMENT

(changing or creating 13 or fewer lots)

- ☐ Preliminary Plat (MIP)
☐ Final Plat (MIF)
☐ Panhandle Subdivision
☐ Accretion Survey
☐ Boundary Adjustment
☐ Lot Consolidation (SLC)
☐ Bungalow Lot Subdivision
☐ Common Wall/Zero Lot Subdivision
☐ Other _____

MAJOR DEVELOPMENT

(changing or creating 14 or more lots)

- ☒ Preliminary Plat (SMP)
☐ Final Plat (SMF)
☐ Preliminary Development Plan – PUD (PDP)
☐ Final Development Plan – PUD (PDF)
☐ Development Plan – ARS (ARP)
☐ Development Plan – ARS (ARF)
☐ Bungalow Lot Subdivision
☐ Common Wall/Zero Lot Subdivision
☐ Other _____

ALL REQUIRED DOCUMENTS ATTACHED

- ☒ Pre-application conference notes
☒ Narrative including:
☒ Legal description(s) of property to be subdivided
☒ Existing structures on the land
☒ Zoning district
☒ Density
☒ Access
☒ Current and proposed use of any structures
☒ Utilities available
☒ Unique characteristics of the land or structure(s)

☒ Preliminary Plat checklist

-----DEPARTMENT USE ONLY BELOW THIS LINE-----

SUBDIVISION/PLATTING FEES	Fees	Check No.	Receipt	Date
Application Fees	\$ <u>1760.00</u>			
Public Notice Sign	\$ <u>150.00</u>			
Admin. of Guarantees	\$ _____			
Adjustment	\$ _____			
Total Fee	\$ <u>1910.00</u>			

major sub:
\$110 per lot
X16 lots

RECEIVED

OCT 12 2020

PERMIT CENTER/CDD

For assistance filling out this form, contact the Permit Center at 586-0770.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

Case Number

Smp20200004

Date Received

10/12/20



October 9, 2020

Laurel Christian, Planner II
City and Borough of Juneau
Community Development Department
155 S. Seward St.
Juneau, AK 99801

SUBJECT: Delta Drive Subdivision - Alternative Residential Subdivision
Project Narrative – PDC Project No. 20098JN

Dear Laurel;

On behalf of our client Bicknell Inc., PDC Engineers (PDC) is submitting this project narrative as part of the Delta Drive Subdivision Alternative Residential Subdivision (ARS) application. The property to be subdivided under the CBJ ARS code has a legal description of Thunder Mountain Park TR 1A with a land area of 79,189 square feet. Currently there are no dwelling structures on the property. Ten (10) existing concrete foundations exist on the property from where previous modular homes were located that have since been removed.

CBJ Zoning - The property is zoned D-18 Multifamily with an allowable density of 18 units per acre. The proposed use of the structures to be developed within the ARS will be residential and will meet the permissible uses as outlined for their zoning district and in the ARS code. The surrounding neighborhood is similarly zoned D-18 and is made up of single family and multi-family residences. The proposed development will be in harmony with the surrounding neighborhood.

Access - The existing parcel is accessed from the cul-de-sac at the end of Delta Drive, a CBJ owned and maintained paved roadway.

Utilities – CBJ public water and sanitary sewer utilities currently service the property. An existing 2-inch water line coming from the end of the existing 6-inch water line in Delta Drive supplies water to this property. Individual $\frac{3}{4}$ " water services are located from the 2-inch line within the property serving the original 10 modular homes. A 6-inch PVC sanitary sewer line exists within the property acting as the sewer collector. This 6-inch sewer pipe connects to the CBJ sewer main located in the Delta Drive cul-de-sac. Individual 4-inch PVC sewer services coming from the building foundations connect to the 6-inch sewer. Under the CBJ Delta Drive Reconstruction project scheduled for construction in the Spring/Summer of 2021, new water and sanitary sewer utilities will be provided to the lot line of this property. An 8-inch PVC sewer service will be provided and an 8-inch HDPE water line. The Delta Drive Subdivision project will connect to these new services and extend into the subdivision. The existing sewer system has been found to be in good condition and will continue to be reused. Lots which previously did not have a 4-inch

Anchorage | Fairbanks | Juneau | Palmer | Soldotna
9109 Mendenhall Mall Road, Suite 4, Juneau, Alaska 99801
907.780.6060
www.PDCENG.com

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Delta Drive Subdivision - ARS
October 9, 2020
Page 2

sewer service will have a new ones installed. The subdivision has an existing 2" Poly water main serving the existing lots. PDC water system analysis (attached) indicates that the existing 2" water service can supply adequate flow and pressure to 7 dwelling units. There are two 2" Poly water line branches that will connect to the new 8" HDPE line. The existing 2" poly water line will be flushed, disinfected and pressure testing in compliance with CBJ Standards for domestic water supply. Existing 3/4" water services will be used or new 1-inch Poly water services will be installed. A master water meter with vault structure will be installed prior to service lines.

Drainage – Surface storm water will be collected in drainage swales on the perimeter and interior lots of the property. The drainage system will involve construction of drainage swales, underground storm drain pipe and underdrain system to safely route the drainage to the existing Delta Drive drainage system which is planned for reconstruction in Spring/Summer 2021 by CBJ. As the designers for CBJ on the Delta Drive Reconstruction project, the storm drain improvements have been designed to accommodate the Delta Drive Subdivision storm drainage. There are two locations where storm drainage will discharge to Delta Drive, both of these locations have pipe sized at 12" diameter. Lots 11-15 will have a drainage swale near the rear of the property and then transition to an 8" underdrain in an existing 10' drainage easement that goes to a new culvert inlet being installed under the Delta Drive Reconstruction project. Lots 7-10 (new foundations) will be graded to drain to a drainage swale in the front of the lots where storm drainage will be collected and routed underground through a 12" drain pipe to the discharge location at the new culvert on Delta Drive. Lots 1-6 will have a perimeter drainage swale at the rear of the property that is graded to drain to the new culvert being installed under the CBJ Delta Drive Reconstruction project.

Parking and Circulation– Each lot will have two parking spaces as shown in the site plan. The existing gravel roadway will be reconstructed to accommodate a 20' wide paved access road through the property. This paved roadway will allow for safe and convenient emergency fire vehicle access throughout the subdivision.

Buffer/Setback – A perimeter buffer has been shown on the site plan with a new wooden fence located at the property line for screening and privacy. Buffers match the required setbacks for this zoning district.

Vegetative Cover – The parent lot has roughly 46% vegetative cover.

Lighting – Lighting will be installed on the individual structures.

Mailbox, Garbage and Snow Storage – CBJ Standard Mailboxes have been shown on Lot 1 to allow for each lot to have US Postal mail delivery. Two garbage dumpsters have been shown on Lot 1 to allow for refuse to be placed from each lot. Snow storage has been shown on Lot 1.

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Delta Drive Subdivision - ARS
October 9, 2020
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Should you have any questions or require any additional information, please do not hesitate to contact me at your convenience.

Sincerely,

A handwritten signature in black ink that reads "J. Mark Pusich". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

J. Mark Pusich, PE
Principal | Civil/Structural Engineer
PDC Engineers

Attachments: ARS Application: CBJ Development Application, ARS Subdivision Preliminary Plat, Lot Closure Comps, Subdivision Application, Preliminary Plat Checklist, Pre-App meeting minutes, Construction Improvement Drawings

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(907) 586-0715
CDD Admin@juneau.org
www.juneau.org/CDD
155 S. Seward Street • Juneau, AK 99801

Delta Drive Alternative Residential Subdivision

Case Number: PAC20200026

Applicant: Spike Bicknell & David Blommer

Property Owner: Delta Park LLC

Property Address: 4090 Delta Drive

Parcel Code Number: 5B2401620011

Site Size: 79,189 Square Feet

Zoning: D-18

Existing Land Use: Manufactured Homes

Conference Date: 4/29/20

Report Issued: 05/06/20

List of Attendees

Note: Copies of the Pre-Application Conference Report will be emailed, instead of mailed, to participants who have provided their email address below.

Name	Title	Email address
David Blommer	Applicant	dblommer@bicknellinc.com
Laurel Christian	Planning	Laurel.christian@juneau.org
Kyle Paw	Permit staff	Kyle.paw@juneau.org
Autumn Sapp	General Engineering	Autumn.Sapp@juneau.org
Mark Pusich	PDC	MarkPusich@pdceng.com

Pre-Application Conference Final Report

Conference Summary

Questions/issues/agreements identified at the conference that weren't identified in the attached reports.

The following is a list of issues, comments and proposed actions, and requested technical submittal items that were discussed at the pre-application conference.

The Alternative Residential Subdivision (ARS) requires a two-step approval process. The ARS preliminary plan is reviewed the and then then ARS final plan is reviewed. A major subdivision application is also required. The applicant may apply for the preliminary ARS plan and preliminary major subdivision plat at the same time.

The preliminary ARS plan is reviewed through the conditional use permit process with additional requirements found in the ARS section of code. The major subdivision plat is reviewed for platting requirements. The ARS section of code is attached to this report, approval criteria are highlighted.

Planning Division

1. **Zoning** – D18 Zoning District. There is no minimum lot size for the unit lots, however; you should demonstrate on the plan their size, and show how large the parent parcel is. CBJ 49.80 Definitions for Parent Lot and Unit Lot:

Parent lot means the original lot and the residual area from which unit-lots are created through an alternative residential subdivision.

Unit-lot means any lot, site, parcel, unit-site, and similar geographically defined property that is created through an alternative residential subdivision and that is substantially smaller than the minimum lot size required for the zoning district

2. **Setback/buffer** – There are no setbacks for the unit lots. A perimeter buffer is required in lieu of the setback requirements of this title on the parent lot. The buffer shall not be less than the setbacks required for the zoning district. Setbacks for the D18 zoning district are: Front: 20'; Rear: 10'; Side: 5'; Street side:13'
 - a. The commission may enlarge the required buffer to up to 25 feet.
 - b. The buffer shall be vegetated unless the commission requires non-vegetated screening. A buffer may include fencing, natural berm, or other similar features.
 - c. No parking areas, dwelling units, unit-lots, or permissible uses may be located within the perimeter buffer. Access to the development may cross a portion of the buffer.
3. **Height** – 35' primary uses; 25' accessory uses
4. **Parking & Circulation** – Each single-family dwelling requires 2 parking spaces. Residential parking lots with more than 10 parking spaces but fewer than 25 parking spaces require 1 ADA van accessible parking space.
 - a. Parking can be either on the unit lots or on the parent lot. On the ARS plan, parking areas should be shown.
5. **Access** – Access to the ARS must be publically maintained (Delta Drive is a publically maintained right-of-way). Access within the ARS must be located completely on the parent lot, be paved, and meet emergency service access requirements.

Pre-Application Conference Final Report

6. **Lot Coverage** – There is no maximum lot coverage for the unit lots, maximum lot coverage applies to the parent lot. The maximum lot coverage is 50%.
7. **Vegetative Coverage** – There is a minimum vegetative cover requirement for the parent lot. In the D18 zoning district, 30% vegetative cover is required.
 - a. Shared open space is not required for an ARS in the D18 zoning district.
8. **Density** – Site measures 79,189 square feet (1.8 acres). At 18 units per acre, the site could accommodate up to 32 dwelling units.
 - a. **Density bonuses** – The commission may award a density bonus to an ARS for enhancements to the development. For the D18 zoning district, the total bonus shall not exceed 25%. Applicant should state in the project narrative if they are requesting density bonuses and how they meet the enhancement criteria.
9. **Lighting** – In the project narrative, the applicant should discuss if lighting will be installed.
10. **Noise** – Noise is not expected to be out of character with the D18 residential zoning district.
11. **Flood** – NA
12. **Hazard/Mass Wasting/Avalanche/Hillside Endorsement** – No Known
13. **Wetlands** – No Known
14. **Habitat** – (Eagle – remind applicant to check with Feds; Riparian, etc.) – No Known
15. **Plat or Covenant Restrictions** – No known
16. **Traffic** – Per CBJ 49.40.300 a traffic impact analysis is required for projects that are anticipated to generate more than 500 average daily trips (ADTs). A single-family dwelling generates 9.52 ADTs. The proposal of 14 lots for single-family dwellings would generate 133.28 ADTs. A TIA will not likely be required for this project.
17. **Homeowners Association** – The ARS requires that a HOA be formed. The HOA documents must be recorded with the final plat.

Building Division

18. **Building** - plans will be addressed in plan review
19. **Outstanding Permits** -

	Permit Application	Pstatus	Permit Type	Location	Permit Id	Purpose
1	BLD20130336	Issued	BMH	4090 DELTA DR	2000993	Place 10 manufactured homes on existing foundations

General Engineering/Public Works

20. **Engineering** –
 - a. **Easements:** Site plan shall include all easements for drainage, utility lines including plumbing lines, access, snow storage, trash (dumpster) storage, or any other shared use that requires crossing the property line.
 - b. **Agreements:** A maintenance and hold harmless (of CBJ) agreement will need to be drafted, signed, and recorded for all shared infrastructure for the development, e.g. driveway, water, sewer, etc.

Pre-Application Conference Final Report

21. **Drainage** – Submit a drainage plan indicating how drainage from the proposed subdivision will join an established drainage channel or channels. Easements must be provided on the plat for all established drainage ways or any proposed drainage ways that cross any current or future abutting property lines.

22. **Utilities** – (water, power, sewer, etc.) A master water meter shall be installed by the developer prior to any branches or services. The meter must be in an above ground heated space. Water and sewer sizing shall be determined by an Alaskan licensed civil or mechanical engineer.

Beyond the shared private main and master water meter, a minimum of 1" water service and 4" sewer service will need to be installed to the front property line of each newly created lot prior to the recording of the final plat. At the time of preliminary plat submittal, please submit a construction plan with for the new utilities. The plan needs to include pipe locations, sizing, and grades for sewer to indicate appropriate fall will be achieved. Existing water services not being utilized shall be decommissioned and removed back to the mainline. If utilizing existing services or branches please show their location, size, and material type on the plan.

If a new private water and/or sewer mains are to be installed within the ROW, the following permits will need to be obtained to provide utilities to the newly created lot:

- a. **CBJ right-of-way (ROW) permit**- Once the construction plan for the utilities is approved, CBJ will create the ROW permit. The permit will allow the tapping of the water and sewer mains, water and sewer service installation, and road restoration within the right-of-way. Inspection fees, refundable bond amount, and conditions will be determined after review of the proposed construction plan. The extension of the utilities within the property will require further permitting and fee assessments. This process is done separately from the subdivision and typically in conjunction with the building permit application.
- b. **CBJ Water and Sewer Utility permits** – The installation of the private water and sewer main lines, services, and the water meter within the private property will be covered by these utility permits.

Fire Marshal

23. **Fire Items/Access** –

List of required applications

Based upon the information submitted for pre-application review, the following list of applications must be submitted in order for the project to receive a thorough and speedy review.

1. ARS Preliminary Plan Approval Application
2. Major Subdivision Application (Required when the subdivision plat is submitted)
3. Development Permit Application

Additional Submittal Requirements

Submittal of additional information, given the specifics of the development proposal and site, are listed below. These items will be required in order for the application to be determined Counter Complete.

1. A copy of this pre-application conference report.

Pre-Application Conference Final Report

2. Preliminary Plat Checklist (Required when the subdivision plat is submitted)
3. Please see 49.15.940(b) for a description of the Required submissions with an ARS Preliminary Plan Approval:
 - a. Ownership
 - b. Preliminary Development Plan
 - c. Design
 - d. Open space, common facilities, and general landscaping
 - e. Request for density bonuses (if applicable)
 - f. Description of phased development (if applicable)
4. As built survey of existing foundations if you plan to utilize them.

Fee Estimates

The preliminary plan review fees listed below can be found in the CBJ code section 49.85.

Based upon the project plan submitted for pre-application review, staff has attempted to provide an accurate estimate for the permits and permit fees which will be triggered by your proposal.

1. ARS Review Fee
 - a. Preliminary Plan – \$400.00 plus \$80.00 per residential unit
 - b. Final Plan - \$300.00 plus \$60.00 per residential unit
 - c. Public notice sign fee \$50 plus \$100 refundable deposit
2. Major Subdivision Review Fee
 - a. Preliminary Plat - \$110 per lot
 - b. Final Plat - \$70 per lot
 - c. Public notice sign fee \$50 plus \$100 refundable deposit
3. ROW Permit (work within the ROW):
 - a. \$10 permit fee
 - b. Inspection fees - \$60 per inspection trip or hour, will be determined at time of construction plan review
 - c. Refundable bond – will be determined at time of construction plan review. Can be paid in the form of cash, check, surety, or conveyance.
 - d. Bond fee – dependent on type of bond payment.
1. Water Utility Permit (work within private property):
 - a. Water Connection charge – based on the line size at the location of the water meter as determined by an Alaskan licensed civil engineer.
2. Sewer Utility Permit (work within private property):
 - a. Sewer Connection charge – based on the number of drainage fixture units and shall be supplied in the civil construction plans as determined by an Alaskan licensed civil engineer.

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- b. \$60.00 per inspection or trip, will be determined at time of construction plan review.

For informational handouts with submittal requirements for development applications, please visit our website at www.juneau.org/cdd.

Submit your Completed Application

You must submit your application(s) in person with payment made to:

City & Borough of Juneau, Permit Center
230 South Franklin Street
Fourth Floor Marine View Center
Juneau, AK 99801

Phone: (907) 586-0715
Fax: (907) 586-4529
Web: www.juneau.org/cdd



PRELIMINARY PLAT CHECK LIST

Name of Proposed Subdivision: Delta Drive Subdivision

The following items must be included with the initial submittal of a Preliminary Plat:

- | | |
|--|---|
| ☒ Application, filled out completely | ☐ Application fee (see fee schedule) |
| ☒ Project Narrative | ☐ Five (5) – 24" by 36" Copies |
| ☒ Pre-application Conference Report | ☒ Lot Closure Report |
| ☒ Disclosure of all known environmental hazards and any proposed mitigation measures recommended in the applicable environmental document. | |
| ☐ Preliminary Plat Checklist: I have reviewed the checklist and all submittals for completeness and accuracy. | |

Applicant or Surveyor - Signature

Date

Applicant or Surveyor - Print Name

GENERAL REQUIREMENTS

- ☐ The preliminary plat shall be prepared by a professional land surveyor, registered in the State of Alaska
- ☐ The preliminary plat shall be submitted on 22 by 34 inch sheets. The director of engineering and public works may approve alternate sheet sizes
- ☐ The preliminary plat shall be drawn with black ink to a scale of one-inch to 100 feet or less, or other suitable scale approved by the director of engineering and public works
- ☐ The preliminary plat shall be oriented with north toward the top of the sheet.
- ☐ A vicinity map shall be located in the upper right-hand corner of the sheet
- ☐ The vicinity map shall be oriented in the same direction as the plat
- ☐ A suitable north arrow shall be shown for the plat and vicinity map
- ☐ All line work and lettering must be of professional quality, and all line widths and lettering sizes must be of such size that all information can be clearly shown without overlap or confusion

GRAPHIC REQUIREMENTS - A preliminary plat shall contain the following information:

Title block - An enclosed title block in the lower right-hand corner containing the following information:

- ☐ The proposed name of the subdivision
- ☐ The legal description of the parcel to be subdivided including U.S. Survey, U.S. Mineral Survey, A.T.S. number or section, township, and range number, as applicable
- ☐ "City and Borough of Juneau, Alaska"
- ☐ "State Recorder's Office at Juneau"
- ☐ The date the preliminary plat was prepared and revised
- ☐ The horizontal scale
- ☐ The name and address of the owner of record
- ☐ The name, address, and telephone number of the surveyor preparing the preliminary plat

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Preliminary Plat Checklist

Updated 1/2018

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Lot, block, and street information:

- ☒ The area of each lot
- ☒ The dimensions in feet and hundredths of a foot
- ☒ An identifying number and letter for lots and blocks
- ☒ Lots numbered consecutively, commencing with the number "1," with no omissions or duplications
- ☒ If the remainder of an original parcel being subdivided is relatively large, it shall be designated as a "tract" with an identifying number
- ☒ All parcels of land intended to be dedicated for public use or reserved for the use of all of the property owners in the proposed subdivision shall be shown as lots, and consecutively numbered. The purpose and any conditions or limitations on the use of the parcel shall be noted on the plat
- ☒ Abutting properties shall be shown with dashed lines, numbers, and/or letters
- ☒ For resubdivisions or public way vacations, the lines and legal description of the previous lots shall be shown with light dashed lines, numbers, and/or letters, or by a separate plat on the same sheet showing the previous lot lines
- ☒ The minimum data shown for each curve shall be as follows:
 - ☐ Length
 - ☐ Central angle
 - ☐ Radius
 - ☐ Bearing and distance of long chord
- ☐ Setbacks shall be shown on all corner lots and any lots with multiple frontage. Setbacks shall be shown on typical lots

Boundary lines:

- ☒ All boundary lines of the subdivision with bearings and distances described
- ☒ All retraced boundary lines shall show record and measured bearings and distances where they differ. Record dimension information shall be shown within parentheses and include a record source identification
- ☒ The exterior boundary lines of the subdivision shall be a solid black opaque line that is of a width that distinguishes it from all other property lines shown on the plat
- ☐ If phasing is proposed, then the boundaries and number of each phase, sequential lot numbering, and a subdivision name consistent with previous phases shall be shown

Monumentation:

- ☒ The monuments used to establish the basis of bearing
- ☒ Each monument found or set shall be identified on the plat by a symbol
- ☒ A complete description of the monument, including type and all information printed on the cap. A typical drawing shall be shown for each type of monument cap set
- ☒ A legend showing the symbols for all the types of monuments
- ☒ The identification, description location, elevation, and datum of the benchmark used to establish vertical control

Site access, circulation, and utilities:

- ☒ The widths and names of existing rights-of-way within the subdivision and within 100 feet of the subdivision boundary
- ☐ Proposed rights-of-way, including their widths and proposed names
- ☐ The grades of existing and proposed streets within these rights-of-way
- ☐ The width, ownership, use, and record reference of all proposed and existing easements within the subdivision and within 100 feet of the subdivision boundary
- ☐ The width, ownership, and use of all proposed easements

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Preliminary Plat Checklist

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- ☒ All proposed and existing easements shall have sufficient dimensions shown to determine their location on the ground
- ☐ Existing trails or pathways within the subdivision and within 100 feet of the subdivision boundary, including the width of any associated rights-of way or easements
- ☐ Proposed trails or pathways and widths of their rights-of-way
- ☐ If the plat submitted covers only a part of the tract under the control of the applicant, a sketch plat of the prospective street system of the unplatted part shall be submitted
- ☒ The location of any existing or proposed driveways/curb cuts that access or are proposed to access any existing or proposed street

Topographic Information:

- ☒ For slopes of less than five percent, show one foot contour lines and include spot elevations at all breaks in grade, along all drainage channels or swales, and at selected points not more than 100 feet apart in all directions
- ☐ For slopes between five percent and ten percent, show two foot contour lines
- ☐ For slopes greater than ten percent, show five foot contour lines
- ☒ Every fifth elevation contour shall be distinctive and clearly labeled
- ☒ Dashed lines shall represent existing contours
- ☒ Mapping shall include any significant features which can materially affect the design of the subdivision, including, but not limited to, structures, fences, walls, and utility poles
- ☒ If irregular slopes or special features are present, additional contour information may be required by the director of engineering and public works for planning or construction purposes. Additional required information may include projecting the topography of the site after grading has taken place, showing such items as:
 - ☐ Pad elevations and drainage patterns for each lot
 - ☐ Tops and toes of all manufactured slopes, including daylight lines
 - ☐ Existing and proposed retaining wall locations and heights
- ☐ For subdivisions located in hillside areas with slopes greater than eighteen percent, additional requirements apply in accordance with CBJ 49.70, Article II

Sewer and water:

- ☒ Existing sewer and water mains within the tract with pipe sizes and grades
- ☒ A draft plan for proposed water and sewer lines showing the size, approximate slope, and connection points with elevations for the purpose of determining the feasibility of construction

Multisheet plats:

- ☐ When a plat requires more than one sheet, exclusive of a certificate sheet, an index sheet shall be included. When a plat requires more than three sheets, a cover sheet shall also be included, showing the subdivision title, a key map, and all certificates. Each additional sheet shall include the following data:
 - ☐ North arrow
 - ☐ Legend
 - ☐ Surveyor's seal and signature
 - ☐ Title block
 - ☐ Sheet _____ of _____
 - ☐ Scale
 - ☐ All plat notes
 - ☐ Vicinity map

N/A

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Preliminary Plat Checklist

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ADDITIONAL MAPPING OR REPORTS- At the pre-application meeting, it will be determined if any of the following additional mapping or reports are required to be submitted with the preliminary plat. If required, the following additional mapping or reports shall be submitted:

Hazard and Special Habitat Areas:

- ☐ Any portion of a special flood hazard area, landslide or avalanche area, habitat area as defined by CBJ 49.70.310, or watersheds, either existing at the proposed subdivision site or shown on the overlay maps, adopted pursuant to this title, to exist at the proposed subdivision site, must be depicted on the preliminary plat
- ☐ The boundaries of any wetland areas must be depicted on the preliminary plat. Boundaries must be determined by a person qualified to perform wetland delineations *N/A*

Soils report:

- ☐ A soils report prepared by an engineer licensed by the State of Alaska shall be required if the proposed subdivision is located farther from the existing public sewer system than specified in CBJ 49.35, and the applicant chooses to provide on-lot waste disposal rather than to connect to the public system. A soils report shall include the following:
 - ☐ Certification that the proposed lots are large enough and have soil of sufficient permeability to permit the construction of approved waste treatment systems for on-lot waste disposal
 - ☐ The location and size of drain fields for each lot
 - ☐ The locations and logs of test borings, percolation test results, and a hydrological evaluation of on-site sewage disposal
 - ☐ If the soils report indicates that the soils found on the site are not of sufficient permeability or the lots are not large enough to permit the construction of systems for on-lot waste disposal, the size of the proposed lots must be increased or alternate methods for waste disposal proposed
 - ☐ The soils report shall describe the nature of the subsurface soils and any soil conditions that would affect the design of the proposed development. The soils report shall state whether the proposed subdivision plan is feasible and provide general solutions for all known geotechnical conditions or problems

Drainage report:

- ☐ A preliminary report specifying the method by which the applicant proposes to manage surface and subsurface drainage for the subdivision and the effect of such method on adjacent areas. Unlike the drainage plan required by CBJ 49.35.510, the preliminary drainage report does not need to be prepared by a licensed engineer. The report must address the following:
 - ☐ A calculation of the increase in stormwater runoff resulting from the proposed development as well as the runoff from all drainage areas associated with the site. Runoff calculations shall be based on a fully-developed subdivision and a 25-year storm event
 - ☐ How drainage from the proposed subdivision will join an established drainage channel or channels, unless the director of engineering and public works approves use of an alternative drainage way
 - ☐ An evaluation of existing drainage ways and structures located between the subdivision and the receiving water body, and verification that the existing drainage ways can accommodate the increased runoff. If the increased runoff cannot be handled, the plan must propose solutions to the problem
 - ☐ All required improvements, on or off site, that are shown on the construction plans in accordance with CBJ 49.35, Article V, and that will be constructed as part of the subdivision

Water:

- ☐ For subdivisions of five or more lots, including major subdivisions, the following shall be included, where applicable, in accordance with CBJ 49.15.412:
 - ☐ If a proposed subdivision is located at greater distance from the existing public water system than specified in CBJ 49.35, Article III, and the applicant chooses not to connect to the public system, a statement that the applicant will provide a community water system or that individual wells will be used

Preliminary Plat Checklist

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- ☐ A report by a registered engineer or geologist that clearly supports the legal and physical availability of adequate water. Methods for proof of water availability and the standards for quantity are listed in CBJ 49.35, Article III
- ☐ A copy of the State application for a permit to appropriate water in the quantity required to meet the subdivisions demands
- ☐ This does not apply to remote subdivisions unless: the subdivider of the remote subdivision chooses to provide potable water, a public water system is available and the subdivision falls within the criteria outlined in CBJ 49.35.310(a), or the subdivision has four or fewer lots.
- ☐ The director for minor subdivisions, and the planning commission for major subdivisions, may, for good cause, temporarily waive the requirement to provide a water report and proof of water, and condition the approval of the preliminary plat upon the provision of both documents as part of the final plat application and approval process.

Erosion control:

- ☐ A report explaining the method by which the applicant proposes to control erosion and manage runoff, and potential impacts to adjacent properties or water bodies. The report shall include a plan for preservation of ground cover in areas where runoff and resulting erosion need to be minimized.

Traffic study:

- ☐ A traffic impact analysis may be required with the preliminary plat in accordance with CBJ 49.40.300.

Shadow plats:

- ☒ For subdivisions of five or more lots in transition areas, a shadow plat shall be submitted according to CBJ 49.70.710. The shadow plat shall consist of a sketch superimposed on the proposed subdivision layout. This sketch shall reflect any future resubdivision of the parcels into smaller lots consistent with the higher density and the lot size allowed under the transition zoning.

3. ALL BEARINGS SHOWN ARE TRUE BEARINGS AS ORIENTED TO THE BASIS OF BEARING AND DISTANCES SHOWN ARE REDUCED TO HORIZONTAL FIELD DISTANCES.
4. THE ERROR OF CLOSURE OF THIS SURVEY DOES NOT EXCEED 1:10,000.
5. **BASIS OF BEARING**
THE BASIS OF BEARING FOR THIS PLAT IS THE BEARING OF S 0° 01' 00" W, AS SHOWN ON PLAT No. 73-17, DATED OCTOBER 29, 1973, BETWEEN THE RECOVERED MONUMENTS, AS SHOWN ON THIS PLAT.
6. WHERE RECORD SURVEY COURSES (BEARINGS AND/OR DISTANCES) DIFFER FROM THAT OF ACTUAL FIELD MEASURED AND/OR COMPUTED SURVEY COURSES, THE RECORD BEARING AND/OR DISTANCES IS SHOWN WITHIN PARENTHESIS AND REFERENCED TO A RECORDED PLAT (R#).
7. THE PRELIMINARY FIELD SURVEYING WAS PERFORMED ON MAY 26-27, 2020, UTILIZING A TRIMBLE S7 ROBOTICS TOTAL STATION WITH STANDARD LASER RANGING MEASUREMENTS.
8. **RECORD INFORMATION**
THE RECORD INFORMATION USED FOR THIS SUBDIVISION IS DERIVED FROM THE OFFICIAL PLATS: PLAT No. 73-17, JUNEAU RECORDING DISTRICT, DATED OCTOBER 29, 1973 (R1), PLAT No. 92-18, JUNEAU RECORDING DISTRICT, DATED APRIL 28, 1992 (R2);
9. ALL DISTANCES ARE MEASURED IN U.S. SURVEY FEET, AND HAVE BEEN REDUCED TO THEIR HORIZONTAL EQUIVALENTS.
10. DOMESTIC WATER AND SANITARY SEWER DISPOSAL PROVIDED BY THE CITY AND BOROUGH OF JUNEAU PUBLIC UTILITIES.
11. THE LOTS CREATED THROUGH THIS SUBDIVISION ARE AN ALTERNATIVE RESIDENTIAL SUBDIVISION, AT TIME OF PLAT RECORDING DEVELOPMENT OF LOTS, INCLUDING FURTHER SUBDIVISION OR USE IS SUBJECT TO CBJ 49.15 ARTICLE IX. SEE CITY AND BOROUGH OF JUNEAU LAND USE CODE FOR CURRENT REGULATIONS.
12. THERE SHALL BE NO DISTURBANCE OR DEVELOPMENT WITHIN THE PERIMETER BUFFER SHOWN ON THIS PLAT, AS REQUIRED BY CBJ 49.15.920(j).
13. AT TIME OF RECORDING, LOTS 2 THROUGH 11 AND 13 THROUGH 15 ARE LIMITED TO ONE SINGLE FAMILY DWELLING. LOT 12 MAY BE PERMITTED ONE SINGLE FAMILY DWELLING AND ONE ACCESSORY APARTMENT. SEE CBJ 49.15 ARTICLE IX FOR CURRENT REGULATIONS.

BICKNELL, INC. HEREBY CERTIFIES THAT BICKNELL, INC. IS THE OWNER OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT IT HEREBY ADOPTS THIS PLAT OF SUBDIVISION WITH ITS FREE CONSENT, AND DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS AND OTHER OPEN SPACES TO PUBLIC OR PRIVATE USE AS NOTED:

OWNER ROScoe V. BICKNELL, IV DATE: 2020
BICKNELL, INC.

[illegible]

THIS IS TO CERTIFY THAT ON THIS _____ DAY OF _____, 2020, BEFORE ME, THE UNDERSIGNED A NOTARY PUBLIC IN AND FOR THE STATE OF ALASKA, DULY COMMISSIONED AND SWORN, PERSONALLY APPEARED _____ TO ME KNOWN TO BE THE PERSONS DESCRIBED IN AND WHO EXECUTED THE ABOVE AND FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT THEY SIGNED AND EXECUTED THE SAME FREELY AND VOLUNTARILY FOR THE USES AND PURPOSES THEREIN MENTIONED.

WITNESS MY HAND AND OFFICIAL SEAL THE DAY AND YEAR IN THIS CERTIFICATE FIRST ABOVE WRITTEN.

NOTARY PUBLIC FOR ALASKA

MY COMMISSION EXPIRES:

I HEREBY CERTIFY THAT THE SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE SUBDIVISION REGULATIONS OF THE CITY AND BOROUGH OF JUNEAU, ALASKA AND THAT SAID PLAT HAS BEEN APPROVED BY THE PLANNING COMMISSION BY PLAT RESOLUTION NO. _____, DATED _____, 2020, AND THAT THE PLAT SHOWN HEREON HAS BEEN APPROVED FOR RECORDING IN THE JUNEAU RECORDING DISTRICT, STATE RECORDERS OFFICE AT ANCHORAGE.

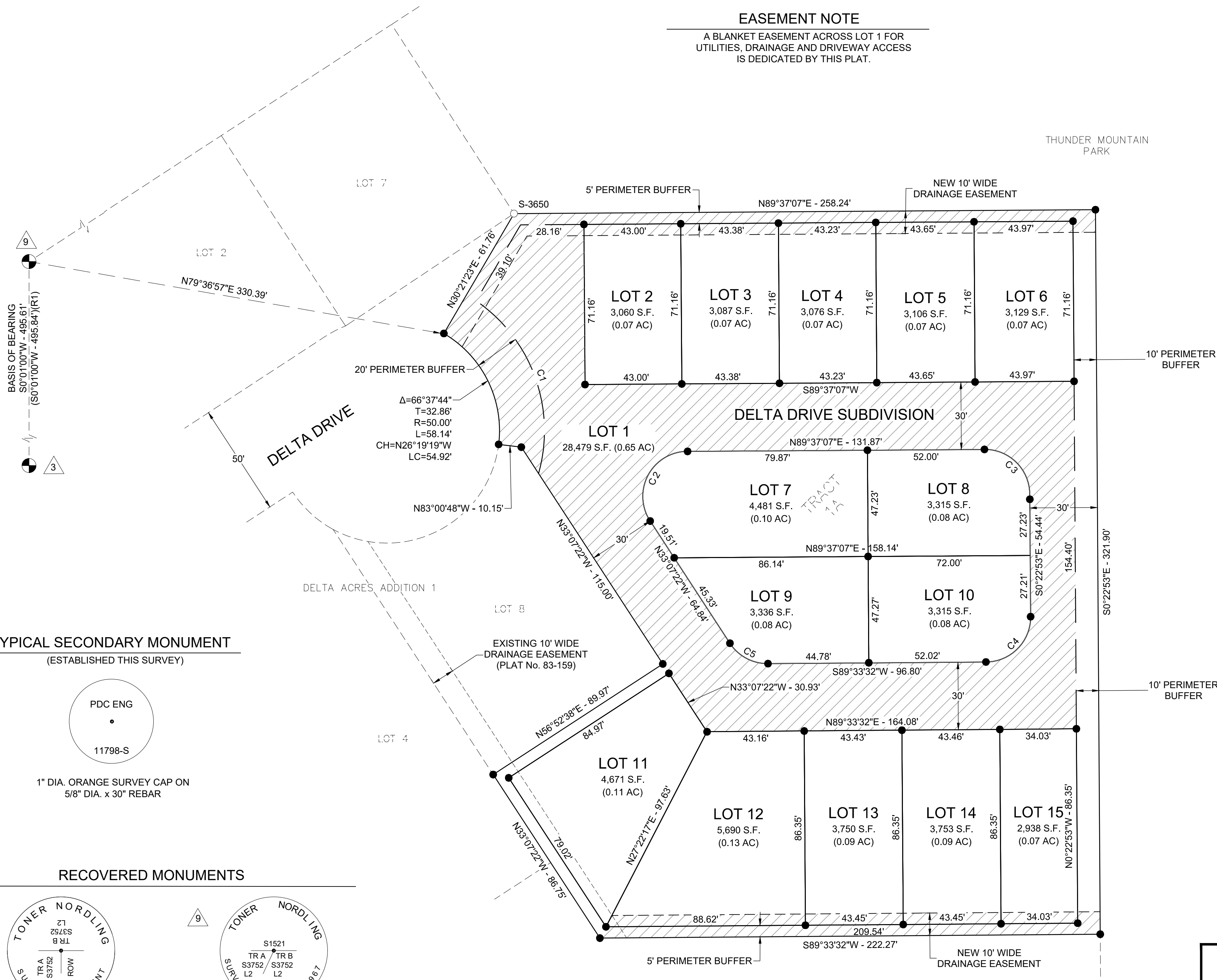
CHAIRMAN OF THE PLANNING COMMISSION
CITY AND BOROUGH OF JUNEAU

DATED _____, 2020

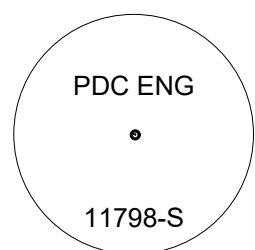
ATTEST:

MUNICIPAL CLERK
CITY AND BOROUGH OF JUNEAU

A BLANKET EASEMENT ACROSS LOT 1 FOR UTILITIES, DRAINAGE AND DRIVEWAY ACCESS IS DEDICATED BY THIS PLAT.

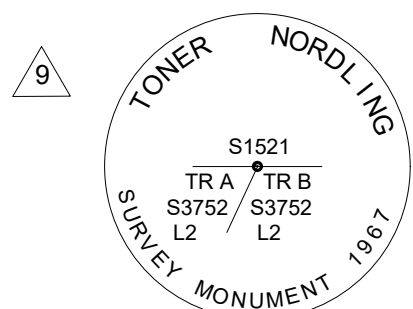


(ESTABLISHED THIS SURVEY)

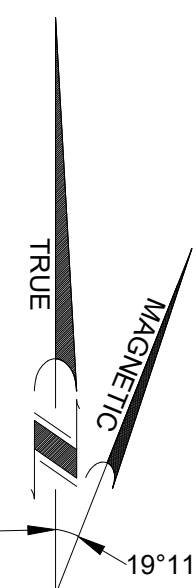


1" DIA. ORANGE SURVEY CAP ON
5/8" DIA. x 30" REBAR

3" BRASS CAP PRIMARY
GOOD CONDITION
1.5' BELOW GRADE

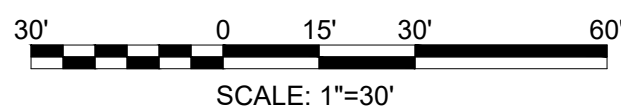


3" BRASS CAP PRIMARY
GOOD CONDITION
FLUSH WITH GRADE



SOURCE: N.O.A.A.
MAGNETIC DECLINATION 19°11'E
NOVEMBER 14, 2017 CHANGING BY
0°17' W/YEAR

CURVE TABLE					
CURVE #	LENGTH	DELTA	RADIUS	CHORD BEARING	CORD DISTANCE
C1	87.15'	71° 20' 01"	70.00'	N19° 52' 32"W	81.63'
C2	42.84'	122° 44' 29"	20.00'	S28° 14' 53"W	35.11'
C3	31.42'	90° 00' 00"	20.00'	N45° 22' 53"W	28.28'
C4	31.40'	89° 56' 25"	20.00'	N44° 35' 20"E	28.27'
C5	20.01'	57° 19' 06"	20.00'	S61° 46' 55"E	19.18'



SOURCE: CBJ PROPERTY ATLAS

SCALE: 1"= 500'

SCALE: 1"= 500'

	PRIMARY MONUMENT (RECOVERED)
	SECONDARY MONUMENT (RECOVERED)
	SECONDARY MONUMENT (ESTABLISHED)
	SURVEYED LINE
	UNSURVEYED LINE
	EASEMENT LINE
	NEW EASEMENT LINE
(R1)	PLAT No. 73-17, JRD
(R2)	PLAT No. 92-18, JRD
	ACCESS, UTILITY & DRAINAGE EASEMENT
	PERIMETER BUFFER

I, CRAIG O. RANSON, IN MY CAPACITY AS A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF ALASKA, CERTIFY THAT THIS PLAT REPRESENTS THE SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE ACCURACY OF THE SURVEY IS WITHIN THE LIMITS REQUIRED BY TITLE 49 OF THE CODE OF THE CITY AND BOROUGH OF JUNEAU, THAT ALL DIMENSIONS AND RELATIVE BEARINGS ARE CORRECT AND THAT MONUMENTS ARE SET IN PLACE AND NOTED UPON THIS PLAT AS PRESENTED.

DATE: 12/04/20



PLAN • DESIGN • CONSTRUCT
A R E S P E C C O M P A N Y
9109 Mendenhall Mall Rd. Ste. 4, Juneau, AK 99801
907.780.6060 | A E C C 605

WITHIN U.S. SURVEY NO. 3752
WITHIN CITY AND BOROUGH OF JUNEAU, ALASKA
JUNEAU RECORDING DISTRICT

STATE RECORDER'S OFFICE AT ANCHORAGE

OWNER:
BICKNELL, INC.
P.O. BOX 33517
JUNEAU, AK 99803

SURVEYOR:
C ENGINEERS
ROAD SUITE 4
ALASKA 99801
(907) 780-6060

DATE: December 04,2020 SCALE: 1"=30' SHEET 1 OF 1 PDC PROJ. No. 20098JN

Parcel Map Check Report

Parcel Name: Delta Drive Subdivision - Lot 1

Description:

Process segment order counterclockwise: False

Enable mapcheck across chord: False

North: 10,010.3222'

East: 10,349.3290'

Segment# 1: Curve

Length: 58.145'

Radius: 50.000'

Delta: 66.6288 (d)

Tangent: 32.862'

Chord: 54.923'

Course: N26° 19' 19.00"W

Course In: N83° 00' 27.08"W

Course Out: N30° 21' 49.08"E

RP North: 10,016.4091'

East: 10,299.7009'

End North: 10,059.5508'

East: 10,324.9752'

Segment# 2: Line

Course: N30° 21' 23.00"E

Length: 61.760'

North: 10,112.8435'

East: 10,356.1873'

Segment# 3: Line

Course: N89° 37' 07.00"E

Length: 258.240'

North: 10,114.5624'

East: 10,614.4216'

Segment# 4: Line

Course: S0° 22' 53.00"E

Length: 321.900'

North: 9,792.6696'

East: 10,616.5643'

Segment# 5: Line

Course: S89° 33' 32.00"W

Length: 222.270'

North: 9,790.9584'

East: 10,394.3009'

Segment# 6: Line

Course: N33° 07' 22.00"W

Length: 86.750'

North: 9,863.6116'

East: 10,346.8977'

Segment# 7: Line

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

Course: N56° 52' 38.00"E	Length: 89.970'
North: 9,912.7744'	East: 10,422.2477'

Segment# 8: Line

Course: N33° 07' 22.00"W	Length: 115.000'
North: 10,009.0870'	East: 10,359.4077'

Segment# 9: Line

Course: N83° 00' 48.00"W	Length: 10.154'
North: 10,010.3222'	East: 10,349.3291'

Perimeter: 2,929.504'	Area: 28,479.40Sq.Ft.
Error Closure: 0.0000	Course: S81° 36' 37.42"E
Error North : 0.00000	East: 0.00003

Precision 1: 1,224,189,000.000

Parcel Name: Delta Drive Subdivision - Lot 10

Description:

Process segment order counterclockwise: False

Enable mapcheck across chord: False

North: 9,913.6361'	East: 10,565.7788'
--------------------	--------------------

Segment# 1: Line

Course: S89° 33' 32.00"W	Length: 52.021'
North: 9,913.2356'	East: 10,513.7594'

Segment# 2: Line

Course: N0° 22' 53.00"W	Length: 47.265'
North: 9,960.4996'	East: 10,513.4448'

Segment# 3: Line

Course: N89° 37' 07.00"E	Length: 72.000'
North: 9,960.9788'	East: 10,585.4432'

Segment# 4: Line

Course: S0° 22' 53.00"E	Length: 27.211'
North: 9,933.7684'	East: 10,585.6243'

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

Segment# 5: Curve

Length: 31.395'	Radius: 20.000'
Delta: 89.9403 (d)	Tangent: 19.979'
Chord: 28.270'	Course: S44° 35' 19.50"W
Course In: S89° 37' 07.00"W	Course Out: S0° 26' 28.00"E
RP North: 9,933.6353'	East: 10,565.6247'
End North: 9,913.6359'	East: 10,565.7787'

Perimeter: 229.892'	Area: 3,314.75Sq.Ft.
Error Closure: 0.0002	Course: S29° 57' 17.16"W
Error North : -0.00021	East: -0.00012

Precision 1: 1,149,460.000

Parcel Name: Delta Drive Subdivision - Lot 11

Description:

Process segment order counterclockwise: False

Enable mapcheck across chord: False

North: 9,795.9792'	East: 10,396.9951'
--------------------	--------------------

Segment# 1: Line

Course: N33° 07' 22.00"W	Length: 79.017'
North: 9,862.1561'	East: 10,353.8175'

Segment# 2: Line

Course: N56° 52' 38.00"E	Length: 84.970'
North: 9,908.5867'	East: 10,424.9800'

Segment# 3: Line

Course: S33° 07' 22.00"E	Length: 30.932'
North: 9,882.6811'	East: 10,441.8823'

Segment# 4: Line

Course: S27° 22' 16.70"W	Length: 97.632'
North: 9,795.9794'	East: 10,396.9955'

Perimeter: 292.552'	Area: 4,671.19Sq.Ft.
---------------------	----------------------

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

Error Closure: 0.0004

Course: N67° 05' 38.55"E

Error North : 0.00016

East: 0.00037

Precision 1: 731,377.500

Parcel Name: Delta Drive Subdivision - Lot 12

Description:

Process segment order counterclockwise: False

Enable mapcheck across chord: False

North:9,796.6615'

East:10,485.6157'

Segment# 1: Line

Course: S89° 33' 32.00"W

Length: 88.623'

North: 9,795.9792'

East: 10,396.9954'

Segment# 2: Line

Course: N27° 22' 16.70"E

Length: 97.632'

North: 9,882.6809'

East: 10,441.8822'

Segment# 3: Line

Course: N89° 33' 32.00"E

Length: 43.160'

North: 9,883.0132'

East: 10,485.0409'

Segment# 4: Line

Course: S0° 22' 53.00"E

Length: 86.354'

North: 9,796.6611'

East: 10,485.6157'

Perimeter: 315.770'

Area: 5,690.00Sq.Ft.

Error Closure: 0.0004

Course: S4° 29' 32.15"W

Error North : -0.00041

East: -0.00003

Precision 1: 789,422.500

Parcel Name: Delta Drive Subdivision - Lot 13

Description:

Process segment order counterclockwise: False

Enable mapcheck across chord: False

North:9,796.9959'

East:10,529.0453'

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

Segment# 1: Line

Course: S89° 33' 32.00"W

North: 9,796.6615'

Length: 43.431'

East: 10,485.6155'

Segment# 2: Line

Course: N0° 22' 53.00"W

North: 9,883.0136'

Length: 86.354'

East: 10,485.0407'

Segment# 3: Line

Course: N89° 33' 32.00"E

North: 9,883.3480'

Length: 43.431'

East: 10,528.4704'

Segment# 4: Line

Course: S0° 22' 53.00"E

North: 9,796.9959'

Length: 86.354'

East: 10,529.0453'

Perimeter: 259.570'

Error Closure: 0.0000

Error North : 0.00000

Area: 3,750.42Sq.Ft.

Course: N0° 00' 00.00"E

East: 0.00000

Precision 1: 259,570,000.000

Parcel Name: Delta Drive Subdivision - Lot 14

Description:

Process segment order counterclockwise: False

Enable mapcheck across chord: False

North:9,797.3305'

East:10,572.5072'

Segment# 1: Line

Course: S89° 33' 32.00"W

North: 9,796.9959'

Length: 43.463'

East: 10,529.0455'

Segment# 2: Line

Course: N0° 22' 53.00"W

North: 9,883.3480'

Length: 86.354'

East: 10,528.4707'

Segment# 3: Line

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

Course: N89° 33' 32.00"E	Length: 43.463'
North: 9,883.6826'	East: 10,571.9324'

Segment# 4: Line

Course: S0° 22' 53.00"E	Length: 86.354'
North: 9,797.3305'	East: 10,572.5072'

Perimeter: 259.634'	Area: 3,753.22Sq.Ft.
Error Closure: 0.0000	Course: N0° 00' 00.00"E
Error North : 0.00000	East: 0.00000

Precision 1: 259,634,000.000

Parcel Name: Delta Drive Subdivision - Lot 15

Description:

Process segment order counterclockwise: False

Enable mapcheck across chord: False

North: 9,797.5925'	East: 10,606.5313'
--------------------	--------------------

Segment# 1: Line

Course: S89° 33' 32.00"W	Length: 34.025'
North: 9,797.3305'	East: 10,572.5073'

Segment# 2: Line

Course: N0° 22' 53.00"W	Length: 86.354'
North: 9,883.6826'	East: 10,571.9325'

Segment# 3: Line

Course: N89° 33' 32.00"E	Length: 34.025'
North: 9,883.9445'	East: 10,605.9565'

Segment# 4: Line

Course: S0° 22' 53.00"E	Length: 86.354'
North: 9,797.5925'	East: 10,606.5313'

Perimeter: 240.758'	Area: 2,938.20Sq.Ft.
Error Closure: 0.0000	Course: N0° 00' 00.00"E
Error North : 0.00000	East: 0.00000

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

Precision 1: 240,758,000.000

Parcel Name: Delta Drive Subdivision - Lot 2

Description:

Process segment order counterclockwise: False

Enable mapcheck across chord: False

North:10,108.0499'

East:10,387.2190'

Segment# 1: Line

Course: N89° 37' 07.00"E

Length: 43.000'

North: 10,108.3361'

East: 10,430.2180'

Segment# 2: Line

Course: S0° 22' 53.00"E

Length: 71.160'

North: 10,037.1777'

East: 10,430.6917'

Segment# 3: Line

Course: S89° 37' 07.00"W

Length: 43.000'

North: 10,036.8915'

East: 10,387.6926'

Segment# 4: Line

Course: N0° 22' 53.00"W

Length: 71.160'

North: 10,108.0499'

East: 10,387.2190'

Perimeter: 228.320'

Area: 3,059.88Sq.Ft.

Error Closure: 0.0000

Course: N0° 00' 00.00"E

Error North : 0.00000

East: 0.00000

Precision 1: 228,320,000.000

Parcel Name: Delta Drive Subdivision - Lot 3

Description:

Process segment order counterclockwise: False

Enable mapcheck across chord: False

North:10,037.4666'

East:10,474.0756'

Segment# 1: Line

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

Course: S89° 37' 07.00"W	Length: 43.385'
North: 10,037.1778'	East: 10,430.6916'

Segment# 2: Line

Course: N0° 22' 53.00"W	Length: 71.160'
North: 10,108.3362'	East: 10,430.2179'

Segment# 3: Line

Course: N89° 37' 07.00"E	Length: 43.385'
North: 10,108.6250'	East: 10,473.6020'

Segment# 4: Line

Course: S0° 22' 53.00"E	Length: 71.160'
North: 10,037.4666'	East: 10,474.0756'

Perimeter: 229.090'	Area: 3,087.27Sq.Ft.
Error Closure: 0.0000	Course: N0° 00' 00.00"E
Error North : 0.00000	East: 0.00000

Precision 1: 229,090,000.000

Parcel Name: Delta Drive Subdivision - Lot 4

Description:

Process segment order counterclockwise: False

Enable mapcheck across chord: False

North:10,037.7543'	East:10,517.3055'
--------------------	-------------------

Segment# 1: Line

Course: S89° 37' 07.00"W	Length: 43.231'
North: 10,037.4666'	East: 10,474.0755'

Segment# 2: Line

Course: N0° 22' 53.00"W	Length: 71.160'
North: 10,108.6250'	East: 10,473.6018'

Segment# 3: Line

Course: N89° 37' 07.00"E	Length: 43.231'
North: 10,108.9128'	East: 10,516.8319'

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

Segment# 4: Line

Course: S0° 22' 53.00"E

Length: 71.160'

North: 10,037.7543'

East: 10,517.3055'

Perimeter: 228.782'

Area: 3,076.31Sq.Ft.

Error Closure: 0.0000

Course: N0° 00' 00.00"E

Error North : 0.00000

East: 0.00000

Precision 1: 228,782,000.000

Parcel Name: Delta Drive Subdivision - Lot 5

Description:

Process segment order counterclockwise: False

Enable mapcheck across chord: False

North:10,038.0449'

East:10,560.9569'

Segment# 1: Line

Course: S89° 37' 07.00"W

Length: 43.652'

North: 10,037.7543'

East: 10,517.3059'

Segment# 2: Line

Course: N0° 22' 53.00"W

Length: 71.160'

North: 10,108.9128'

East: 10,516.8322'

Segment# 3: Line

Course: N89° 37' 07.00"E

Length: 43.652'

North: 10,109.2033'

East: 10,560.4833'

Segment# 4: Line

Course: S0° 22' 53.00"E

Length: 71.160'

North: 10,038.0449'

East: 10,560.9569'

Perimeter: 229.625'

Area: 3,106.30Sq.Ft.

Error Closure: 0.0000

Course: N0° 00' 00.00"E

Error North : 0.00000

East: 0.00000

Precision 1: 229,624,000.000

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

Parcel Name: Delta Drive Subdivision - Lot 6

Description:

Process segment order counterclockwise: False

Enable mapcheck across chord: False

North:10,038.3376'

East:10,604.9288'

Segment# 1: Line

Course: S89° 37' 07.00"W

Length: 43.973'

North: 10,038.0449'

East: 10,560.9568'

Segment# 2: Line

Course: N0° 22' 53.00"W

Length: 71.160'

North: 10,109.2033'

East: 10,560.4831'

Segment# 3: Line

Course: N89° 37' 07.00"E

Length: 43.973'

North: 10,109.4960'

East: 10,604.4551'

Segment# 4: Line

Course: S0° 22' 53.00"E

Length: 71.160'

North: 10,038.3376'

East: 10,604.9288'

Perimeter: 230.265'

Area: 3,129.10Sq.Ft.

Error Closure: 0.0000

Course: N0° 00' 00.00"E

Error North : 0.00000

East: 0.00000

Precision 1: 230,266,000.000

Parcel Name: Delta Drive Subdivision - Lot 7

Description:

Process segment order counterclockwise: False

Enable mapcheck across chord: False

North:9,959.9262'

East:10,427.3039'

Segment# 1: Line

Course: N33° 07' 22.00"W

Length: 19.510'

North: 9,976.2659'

East: 10,416.6430'

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

Segment# 2: Curve

Length: 42.845'	Radius: 20.000'
Delta: 122.7414 (d)	Tangent: 36.638'
Chord: 35.110'	Course: N28° 14' 52.50"E
Course In: N56° 52' 38.00"E	Course Out: N0° 22' 53.00"W
RP North: 9,987.1946'	East: 10,433.3930'
End North: 10,007.1941'	East: 10,433.2599'

Segment# 3: Line

Course: N89° 37' 07.00"E	Length: 79.872'
North: 10,007.7258'	East: 10,513.1301'

Segment# 4: Line

Course: S0° 22' 53.00"E	Length: 47.227'
North: 9,960.4998'	East: 10,513.4445'

Segment# 5: Line

Course: S89° 37' 07.00"W	Length: 86.143'
North: 9,959.9264'	East: 10,427.3034'

Perimeter: 275.598'	Area: 4,481.08Sq.Ft.
Error Closure: 0.0006	Course: N68° 20' 16.23"W
Error North : 0.00021	East: -0.00054

Precision 1: 459,328.333

Parcel Name: Delta Drive Subdivision - Lot 8

Description:

Process segment order counterclockwise: False

Enable mapcheck across chord: False

North:10,007.7259'	East:10,513.1305'
--------------------	-------------------

Segment# 1: Line

Course: N89° 37' 07.00"E	Length: 52.000'
North: 10,008.0720'	East: 10,565.1294'

Segment# 2: Curve

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

Length: 31.416'	Radius: 20.000'
Delta: 90.0000 (d)	Tangent: 20.000'
Chord: 28.284'	Course: S45° 22' 53.00"E
Course In: S0° 22' 53.00"E	Course Out: N89° 37' 07.00"E
RP North: 9,988.0725'	East: 10,565.2625'
End North: 9,988.2056'	East: 10,585.2621'

Segment# 3: Line	
Course: S0° 22' 53.00"E	Length: 27.227'
North: 9,960.9792'	East: 10,585.4433'

Segment# 4: Line	
Course: S89° 37' 07.00"W	Length: 72.000'
North: 9,960.4999'	East: 10,513.4449'

Segment# 5: Line	
Course: N0° 22' 53.00"W	Length: 47.227'
North: 10,007.7259'	East: 10,513.1305'

Perimeter: 229.871'	Area: 3,314.53Sq.Ft.
Error Closure: 0.0000	Course: S45° 00' 00.00"E
Error North : 0.00000	East: 0.00000

Precision 1: 229,870,000.000

Parcel Name: Delta Drive Subdivision - Lot 9

Description:

Process segment order counterclockwise: False

Enable mapcheck across chord: False

North: 9,960.4996'	East: 10,513.4449'
--------------------	--------------------

Segment# 1: Line	
Course: S0° 22' 53.00"E	Length: 47.265'
North: 9,913.2357'	East: 10,513.7595'

Segment# 2: Line	
Course: S89° 33' 32.00"W	Length: 44.783'
North: 9,912.8909'	East: 10,468.9778'

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

Segment# 3: Curve

Length: 20.008'

Delta: 57.3183 (d)

Chord: 19.184'

Course In: N0° 26' 28.00"W

RP North: 9,932.8903'

End North: 9,921.9616'

Radius: 20.000'

Tangent: 10.931'

Course: N61° 46' 55.00"W

Course Out: S56° 52' 38.00"W

East: 10,468.8239'

East: 10,452.0738'

Segment# 4: Line

Course: N33° 07' 22.00"W

North: 9,959.9264'

Length: 45.331'

East: 10,427.3034'

Segment# 5: Line

Course: N89° 37' 07.00"E

North: 9,960.4998'

Length: 86.143'

East: 10,513.4445'

Perimeter: 243.529'

Error Closure: 0.0004

Error North : 0.00017

Area: 3,336.39Sq.Ft.

Course: N67° 37' 18.74"W

East: -0.00041

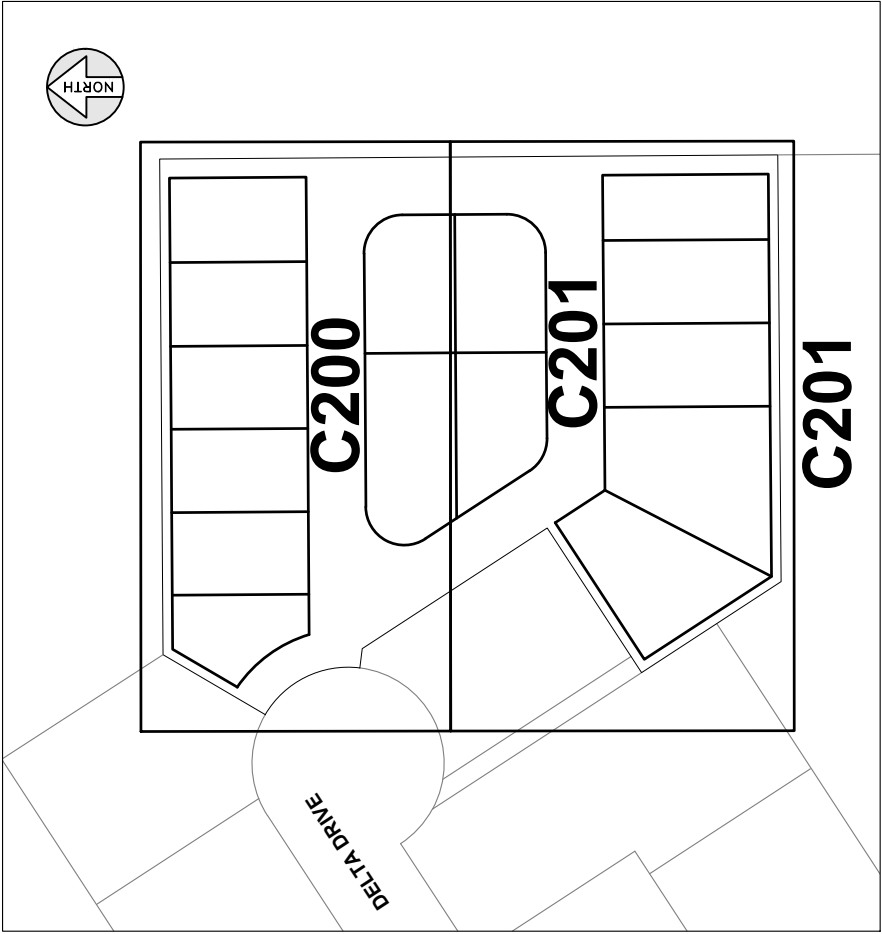
Precision 1: 608,825.000

DELTA DRIVE SUBDIVISION CONSTRUCTION IMPROVEMENT PLAN

JUNEAU, ALASKA

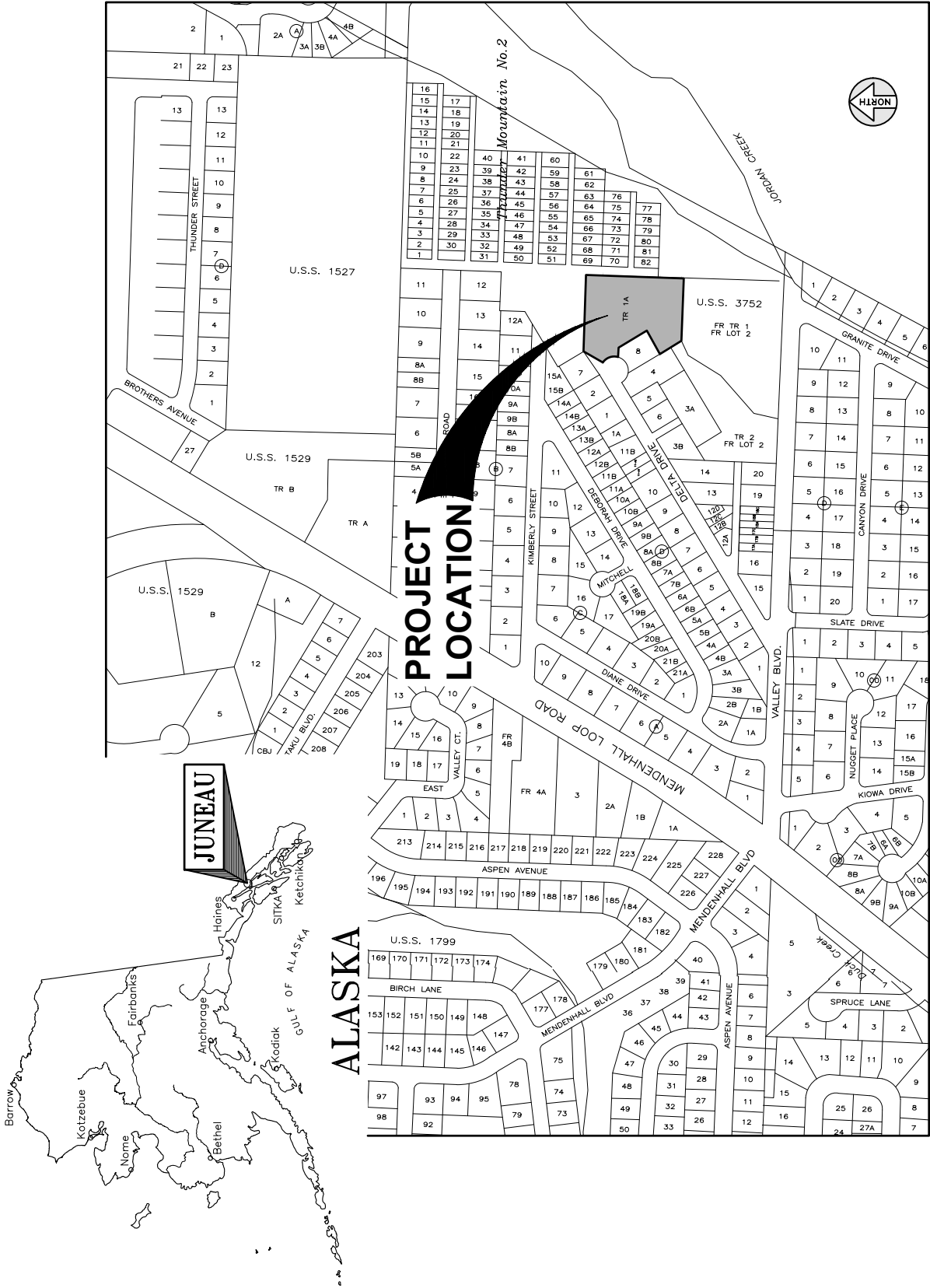
SHEET INDEX

SHEET No.	DESCRIPTION
C001	COVER SHEET
C002	GENERAL NOTES, ABBREVIATIONS AND SYMBOLS
C003	SUMMARY TABLES
C004	EXISTING SITE CONDITIONS
C100	TYPICAL SECTIONS
C101	CONSTRUCTION DETAILS
C102	CONSTRUCTION DETAILS
C200	OVERALL SITE PLAN
C201	SITE & UTILITY PLAN
C202	SITE & UTILITY PLAN
C203	GRADING PLAN
C204	WATER METER ENCLOSURE DETAILS
C205	WATER METER ENCLOSURE DETAILS
C206	WATER METER ENCLOSURE DETAILS
C207	WATER METER ENCLOSURE DETAILS
C300	EROSION & SEDIMENT CONTROL PLAN
C301	EROSION & SEDIMENT CONTROL DETAILS



SHEET KEY MAP

N.T.S.

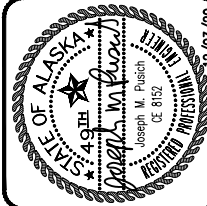


PROJECT LOCATION MAP



DESIGN MSM
DRAWN MSM
CHECK JMP
APPROVED JMP
FILE:

No.	DATE	REVISION	BY	APPROVED



COVER SHEET

DATE: Dec 03, 2020 PDC No. 20098JUN	SHEET C001
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GENERAL CONSTRUCTION NOTES

1.

CBJ ENGINEERING STANDARD DETAILS BOOK FOR CIVIL ENGINEERING PROJECTS AND SUBDIVISION IMPROVEMENTS DATED AUGUST, 2011 AND CBJ ENGINEERING STANDARD SPECIFICATIONS DATED DECEMBER, 2003 ARE MADE A PART OF THIS CONTRACT, WITH CURRENT REVISIONS AS APPLICABLE.
2.

LARGE BOULDERS, HARDPAN, STUMPS, LOGS, ORGANICS AND GROUND WATER MAY BE ENCOUNTERED AT VARIOUS DEPTHS DURING EXCAVATION OPERATIONS. THESE MATERIALS SHALL BE DISPOSED OF AS REQUIRED BY THE ENGINEER.
3.

GRADES AND ALIGNMENTS SHOWN ON THESE PLANS ARE SUBJECT TO MINOR REVISIONS AS APPROVED BY THE ENGINEER.
4.

LOCATION OF WATER SYSTEM IMPROVEMENTS, SANITARY SEWER MANHOLES, STORM DRAIN STRUCTURES, PIPING AND PIPE LENGTHS ARE SUBJECT TO MINOR REVISIONS AS APPROVED BY THE ENGINEER.
5.

LOCATIONS OF EXISTING UNDERGROUND SEWER, WATER, TELEPHONE, CABLE TELEVISION, AND POWER UTILITIES SHOWN ON THESE PLANS WERE DERIVED FROM CBJ AS-BUILTS OR FIELD LOCATES. ACTUAL LOCATIONS MAY VARY FROM THOSE SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING, PROTECTING AND MAINTAINING THE UTILITIES THROUGHOUT THE CONSTRUCTION OF THIS PROJECT. ANY DAMAGE RESULTING TO THESE UNDERGROUND UTILITIES DURING CONSTRUCTION SHALL BE PAID FOR BY THE CONTRACTOR AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. CALL "DIAL BEFORE YOU DIG" @ 586-1333 FOR UNDERGROUND UTILITY LOCATES AND 811 ALASKA DIG LINE FOR ACS AND GCI PRIOR TO ANY EXCAVATION ACTIVITIES.
6.

CONTRACTOR SHALL ASSURE GARBAGE PICKUP, DAILY MAIL SERVICE, FUEL AND SERVICE DELIVERIES WILL BE UNINTERRUPTED TO ALL RESIDENTS AFFECTED BY THIS PROJECT.
7.

PROPERTY LINE LOCATIONS USED IN THESE PLANS WERE DERIVED FROM RECORD PLATS AND DO NOT REPRESENT A SUBDIVISION BOUNDARY SURVEY.
8.

ALL SIGN INSTALLATIONS OR RELOCATIONS SHALL BE PERFORMED ACCORDING TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (M.U.T.C.D.) WITH THE ALASKA SUPPLEMENT.
9.

ALL ITEMS DESIGNATED TO BE REMOVED SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL SITE, EXCEPT AS NOTED IN THE CONTRACT DOCUMENTS.
10.

PROVIDE KNOCKOUTS IN PRECAST STORM DRAIN STRUCTURES FOR ALL PIPES SHOWN ON THE PLANS.
10.

ONLY HORIZONTAL ELBOW FITTINGS (BENDS) ARE SHOWN ON THE PLANS. ADDITIONAL FITTINGS WILL BE REQUIRED FOR VERTICAL DEFLECTIONS NEAR CONNECTION TO EXISTING PIPES, AND AT OTHER LOCATIONS REQUIRING GRADE CHANGES TO AVOID CONFLICTS.
11.

THE CONTRACTOR SHALL NOT STORE MATERIALS OR EQUIPMENT OR OPERATE EQUIPMENT WITH ITS TRACKS OR WHEELS PLACED ON PRIVATE PROPERTY WITHOUT THE WRITTEN APPROVAL OF THE PROPERTY OWNER.
11.

THE CONTRACTOR SHALL NOTIFY CBJ WATER UTILITIES OPERATOR LONI VANKIRK (723-4975) OF PROPOSED WATER SERVICE INTERRUPTION AND SUBMIT THE "WATER SYSTEM SPECIAL USE PERMIT" (COSIGNED BY THE ENGINEER) AT LEAST 48-HOURS PRIOR TO SHUTDOWN OR FLUSHING OF MAINLINE WATER PIPE. NO WATER SERVICE INTERRUPTION MAY PROCEED UNTIL THIS APPROVAL IS OBTAINED.
12.

CONTRACTOR SHALL REFERENCE ALL EXISTING PROPERTY CORNER MONUMENTS (I.E. BRASS CAP MONUMENTS, REBARS OR CHISELED X'S) PRIOR TO CONSTRUCTION THAT WILL BE DISTURBED DURING HIS WORK, AND REMONUMENT AFTER CONSTRUCTION OPERATIONS. ALL WORK SHALL BE DONE BY, OR UNDER THE DIRECTION OF, AN ALASKA REGISTERED LAND SURVEYOR. ALL EXISTING PROPERTY CORNERS ARE NOT NECESSARILY SHOWN ON THE PLANS.
13.

THE PLAN DRAWINGS DO NOT NECESSARILY SHOW ALL TREES AND SHRUBS THAT MAY BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES. NO TREES, SHRUBS OR LANDSCAPING ARE TO BE REMOVED OR DAMAGED, UNLESS SHOWN ON THE DRAWINGS OR DIRECTED BY THE ENGINEER.
14.

"JUMPING JACK", OR SIMILAR TYPE COMPACTORS SHALL BE USED FOR COMPACTION WITHIN 18-INCHES OF THE OUTSIDE SURFACE OF ALL WATER VALVE BOXES, CATCH BASINS AND MANHOLES.
15.

THE USE OF GROUT AND QUICKSET CEMENT PRODUCTS WITH ADJUSTING RINGS, BRICKS, WOOD, STONES AND OTHER SIMILAR GRADE ADJUSTMENT DEVICES TO SUPPORT CATCH BASIN FRAMES OVER CATCH BASINS AND MANHOLES WILL NOT BE PERMITTED ON THIS PROJECT. SEE CBJ STANDARD SPECIFICATIONS, SECTION 02502 - STORM SEWER MANHOLES, INLETS AND CATCH BASINS AND THE DRAWINGS FOR CATCH BASIN FRAME SUPPORT REQUIREMENTS. SANITARY SEWER MANHOLES SHALL BE ADJUSTED PER CBJ STANDARD SPECIFICATIONS 02402 - SANITARY SEWER MANHOLES AND CLEANOUTS.
16.

THE CONTRACTOR SHALL INSTALL AND MAINTAIN ENGINEER APPROVED EROSION CONTROL DEVICES DURING CONSTRUCTION PER CBJ STANDARD SPECIFICATIONS SECTION 01570 REQUIREMENTS.
17.

ALL WORK FOR THESE PLANS SHALL BE CONDUCTED IN STRICT ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL LAWS AND STANDARDS.

ABBREVIATIONS

AC	ASBESTOS CEMENT
ACS	ALASKA COMMUNICATIONS SYSTEMS
AEL&P	ALASKA ELECTRIC LIGHT & POWER
APPROX	APPROXIMATE
AST	ABOVEGROUND STORAGE TANK
BC	BACK OF CURB
BLVD	BOULEVARD
BOP	BEGINNING OF PROJECT
CB	CATCH BASIN
CBJ	CITY & BOROUGH OF JUNEAU
CHB	CHORD BEARING
CHL	CHORD LENGTH
C/L	CENTERLINE
CI	CAST IRON
CLR	CLEAR
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
CONT	CONTINUOUS
CPP	CORRUGATED POLYETHYLENE PIPE
CTE	CONNECT TO EXISTING
DI	DUCTILE IRON
DIP	DUCTILE IRON PIPE
DIA	DIAMETER
E	EASTING
EG	EXISTING GRADE
EL	ELEVATION
EOP	END OF PROJECT
EP	EDGE OF PAVEMENT
EXIST	EXISTING
EXP	EXPANSION
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
GCI	GENERAL COMMUNICATION INC.
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE
HP	HIGH PRESSURE
IE	INVERT ELEVATION
L	LENGTH
LP	LOW POINT
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
MJ	MECHANICAL JOINT
MTE	MATCH TO EXISTING
N	NORTHING
N/A	NOT APPLICABLE
NFS	NON-FROST SUSCEPTIBLE
NTS	NOT TO SCALE
NVC	NO VERTICAL CURVE
OC	ON CENTER
PC	POINT OF CURVATURE
PERF	PERFORATED
PI	POINT OF INTERSECTION
P/L	PROPERTY LINE
POC	POINT ON CURVE
POL	POINT ON LINE
PP	POWER POLE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
R	RADIUS
ROW	RIGHT-OF-WAY
RP	RADIUS POINT
RT	RIGHT
SDMH	STORM DRAIN MANHOLE
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEANOUT
SSMH	SANITARY SEWER MANHOLE
STA	STATION
STD	STANDARD
SWPPP	STORM WATER POLLUTION PREVENTION PLAN
T	TANGENT
TBG	TOP BACK OF GUTTER
TBM	TEMPORARY BENCH MARK
TC	TOP OF CONCRETE
TOB	TOP OF BANK
TOP	TOP OF PIPE
TYP	TYPICAL
UD	UNDERDRAIN
UON	UNLESS OTHERWISE NOTED
UST	UNDERGROUND STORAGE TANK
VC	VERTICAL CURVE
VERT	VERTICAL
VPI	VERTICAL POINT OF INTERSECTION
W/	WITH

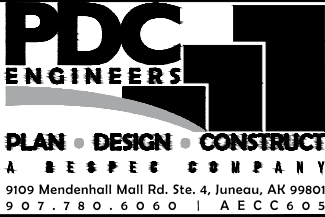
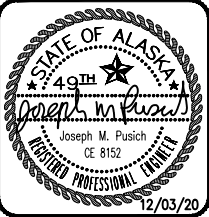
SYMBOLS

EXISTING	PROPOSED	
		PRIMARY MONUMENT
		SECONDARY MONUMENT
		SURVEY SPIKE / MAG NAIL
		TEMPORARY BENCHMARK
		PROPERTY / BOUNDARY LINE
		PROPERTY / BOUNDARY LINE UNSERVED
		PROJECT BASELINE
		TOP OF BANK
		TOE OF SLOPE
		WATER GATE VALVE/CURB STOP
		WATER LINE/SERVICE
		SEWER LINE/SERVICE
		WOODEN FENCE
		CHAIN-LINK FENCE
		OVERHEAD ELECTRIC LINE
		ASPHALT PAVEMENT
		TREE LINE
		FIRE HYDRANT
		SANITARY SEWER MANHOLE
		SANITARY SEWER CLEANOUT
		CONCRETE HEADWALL W/ TRASH RACK
		STORM SEWER PIPE
		CATCH BASIN W/ AREA DRAIN
		TELEPHONE PEDESTAL
		CABLE PEDESTAL
		ELECTRICAL PEDESTAL
		POWER POLE WITH LIGHT
		GUY WIRE
		GANG STYLE MAILBOX
		STREET SIGN
		CONIFEROUS TREE
		DECIDUOUS TREE
		BUILDING FOUNDATION

DESIGN MSM
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No.	DATE	REVISION	BY	APRVD.

DELTA DRIVE
SUBDIVISION
JUNEAU, AK



GENERAL NOTES,
ABBREVIATIONS AND
SYMBOLS

DATE: Dec 03, 2020
PDC No. 20098JN
SHEET
C002

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

WATER SERVICE SUMMARY			
LOT No.	STATION & OFFSET	SIZE/TYPE	REMARKS
2	10+95.1, 13.5' LT	1" POLY	SEE NOTE 1
3	11+28.9, 13.5' LT	1" POLY	SEE NOTE 1
4	11+81.8, 13.5' LT	1" POLY	SEE NOTE 1
5	12+15.3, 13.5' LT	1" POLY	SEE NOTE 1
6	12+58.8, 21.4' LT	1" POLY	SEE NOTE 1
7	11+68.0, 13.4' RT	1" POLY	NEW SERVICE
8	12+28.0, 13.5' RT	1" POLY	NEW SERVICE
9	14+71.4, 13.4' RT	1" POLY	NEW SERVICE
10	14+11.4, 13.3' RT	1" POLY	NEW SERVICE
11	15+22.0, 18.1' LT	1" POLY	SEE NOTE 1
12	14+96.0, 13.5' LT	1" POLY	SEE NOTE 1
13	14+62.5, 13.5' LT	1" POLY	SEE NOTE 1
14	14+09.2, 13.5' LT	1" POLY	SEE NOTE 1
15	13+85.5, 21.6' LT	1" POLY	SEE NOTE 1
NOTES: 1. EXISTING FOUNDATION PADS REPORTED TO HAVE 3/4" POLY WATER SERVICES TO EACH UNIT. EXISTING WATER SERVICES MAY BE REUSED IF FOUND TO BE IN SATISFACTORY CONDITION. FLUSHING, DISINFECTION AND PRESSURE TESTING SHALL BE PERFORMED ON THE EXISTING 3/4" POLY WATER SERVICES.			

STORM DRAIN STRUCTURE FRAME & GRATE SUMMARY	
STRUCTURE No.	EAST JORDAN, OLYMPIC FOUNDRY Co., CBJ STANDARD No., OR APPROVED EQUAL
S-1	OLYMPIC FOUNDRY MH34SC

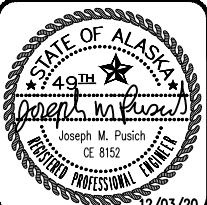
SEWER SERVICE SUMMARY			
LOT No.	STATION & OFFSET	SIZE/TYPE	REMARKS
2	10+82.7, 14.0' LT	4" PVC	SEE NOTE 1
3	11+16.6, 14.0' LT	4" PVC	SEE NOTE 1
4	11+71.4, 14.0' LT	4" PVC	SEE NOTE 1
5	12+02.3, 14.0' LT	4" PVC	SEE NOTE 1
6	12+52.1, 14.0' LT	4" PVC	SEE NOTE 1
7	11+38.0, 14.5' RT	4" PVC	NEW SERVICE
8	11+98.0, 14.5' RT	4" PVC	NEW SERVICE
9	15+01.5, 14.5' RT	4" PVC	NEW SERVICE
10	14+41.4, 14.5' RT	4" PVC	NEW SERVICE
11	15+27.7, 14.0' LT	4" PVC	SEE NOTE 1
12	15+07.9, 14.0' LT	4" PVC	SEE NOTE 1
13	14+77.6, 14.0' LT	4" PVC	SEE NOTE 1
14	14+22.8, 14.0' LT	4" PVC	SEE NOTE 1
15	13+92.1, 14.0' LT	4" PVC	SEE NOTE 1
NOTES: 1. SEWER SERVICE LOCATIONS SHOWN ARE FROM LIMITED AS-BUILT INFORMATION AND WERE NOT FIELD LOCATED. EXISITNG 4" PVC SEWER SERVICES EXIST FOR LOTS 2-6 AND LOTS 11-15. CONTRACTOR SHALL FIELD LOCATE ALL SEWER SERVICES TO CONFIRM FINAL LOCATION FOR NEW SEWER SERVICE CLEANOUT INSTALLATION. STATION & OFFSET ARE GIVEN TO THE CENTER OF THE NEW CLEANOUT LID. IF EXISTING SANITARY SEWER SERVICES FOUND TO BE IN GOOD CONDITION CONTRACTOR MAY KEEP THEM IN SERVICE. 2. CONSTRUCT NEW 4" PVC SEWER SERVICE AND INSTALL NEW CLEANOUT NEAR PROPERTY LINE PER CBJ STANDARD DETAIL 213 AND CONNECT TO EXISTING SEWER SERVICE. 3. ADJUST SEWER SERVICE SLOPE TO PROVIDE MAXIMUM SEPARATION BETWEEN UTILITY CROSSINGS. INSTALL SWEEPS AS REQUIRED UPON APPROVAL OF THE ENGINEER.			

DESIGN MSM
DRAWN MSM
CHECK JMP
APPROVED JMP
FILE:

No.	DATE	REVISION	BY	APRVD.	

DELTA DRIVE
SUBDIVISION

JUNEAU, AK



SUMMARY TABLES

DATE: Dec 03, 2020
PDC No. 20098JN

SHEET
C003

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

SURVEY NOTES

1. THE PURPOSE OF THIS SURVEY IS TO PROVIDE A TOPOGRAPHIC DESIGN SURVEY OF THE DELTA DRIVE DEVELOPMENT.
2. THE FIELD SURVEYS WERE PERFORMED ON MAY 26-27, 2020.
3. THE SURVEY EQUIPMENT UTILIZED DURING THIS SURVEY WAS TRIMBLE R8-2 GNSS ROVER AND BASE AND A TRIMBLE S-7 ROBOTIC TOTAL STATION UTILIZING STANDARD LASER MEASURING TECHNIQUES.
4. ALL DISTANCES AND DIMENSIONS ARE IN U.S. SURVEY FEET AND REDUCED TO THEIR HORIZONTAL VALUES.
5. CONTROL AND MONUMENT COORDINATES ARE IN AN ASSUMED LOCAL COORDINATE SYSTEM.
6. ELEVATIONS ARE IN AN ASSUMED LOCAL VERTICAL DATUM.
7. CONTOURS ARE SHOWN AT 1-FOOT INTERVALS.
8. ALL UTILITIES WERE LOCATED BY PDC AND ARE BASED ON OBSERVABLE EVIDENCE AND ABOVE GROUND APPURTENANCES AND FIELD RETRACEMENT PERFORMED BY PDC.
9. THIS SURVEY DOES NOT CONSTITUTE A SUBDIVISION AS PER ALASKA STATUTE 40.15.900(5)(a).

EXIST. SSCO	(CO1)
STA 10+04.9,	33.3 LT
EXIST. LID EL=	97.31
SW 8" (OUT) IE=	94.81

EXIST. SSMH	(M1)
STA 08+90.8,	25.9 RT
EXIST. LID EL=	98.50
E 6" (IN) IE=	92.94
NW 8" (OUT) IE=	92.84

NOTES:

1. ROADWAY AND UTILITY INFORMATION SHOWN ON DELTA DRIVE IS PROPOSED FROM CBJ CONTRACT BE21-028 "DELTA DRIVE RECONSTRUCTION." WORK IS SCHEDULED FOR SPRING/SUMMER 2021.
2. EXISTING 6" PVC SEWER MAIN AND 2" POLY PIPE FOR DOMESTIC WATER EXIST ON SITE.

TABLE OF HORIZONTAL CONTROL POINTS

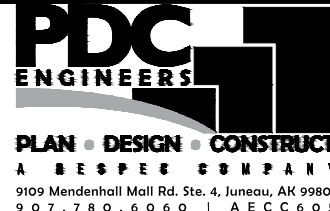
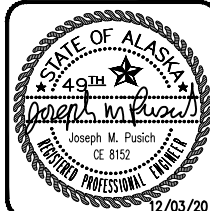
POINT #	NORTHING	EASTING	DESCRIPTION
CP 10	10112.63	10356.34	S-3650, SECONDARY, 1" PLASTIC CAP
CP 11	10014.23	10385.34	MAG NAIL
CP 15	9896.49	10453.74	SURVEY SPIKE
CP 16	10027.18	10545.16	SURVEY SPIKE

TABLE OF VERTICAL CONTROL POINTS

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
FH-1	9983.52	10247.42	100.44'	"X" ON NORTH FIRE HYDRANT BOLT

DELTA DRIVE SUBDIVISION

JUNEAU, AK



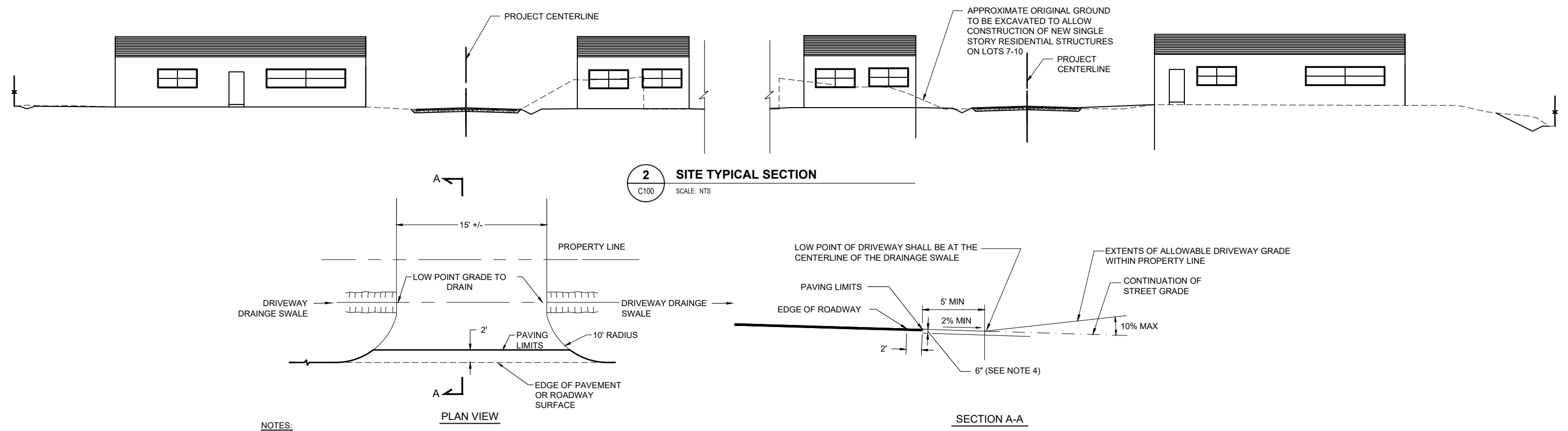
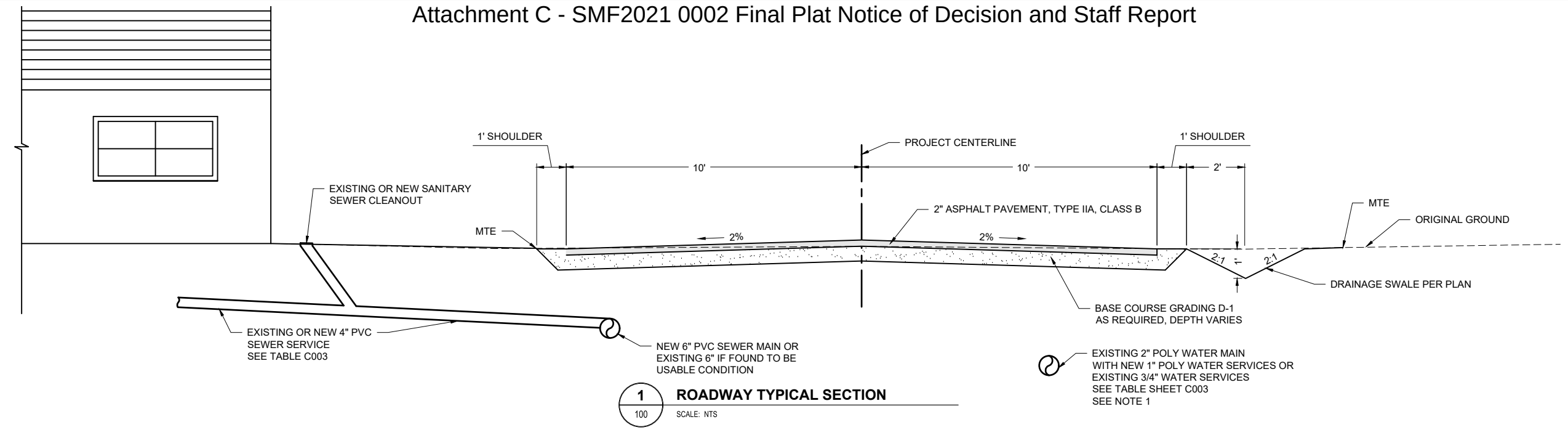
EXISTING SITE CONDITIONS

DATE: Dec 03, 2020
DOC No. 20098JN

SHEET
C004

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Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report



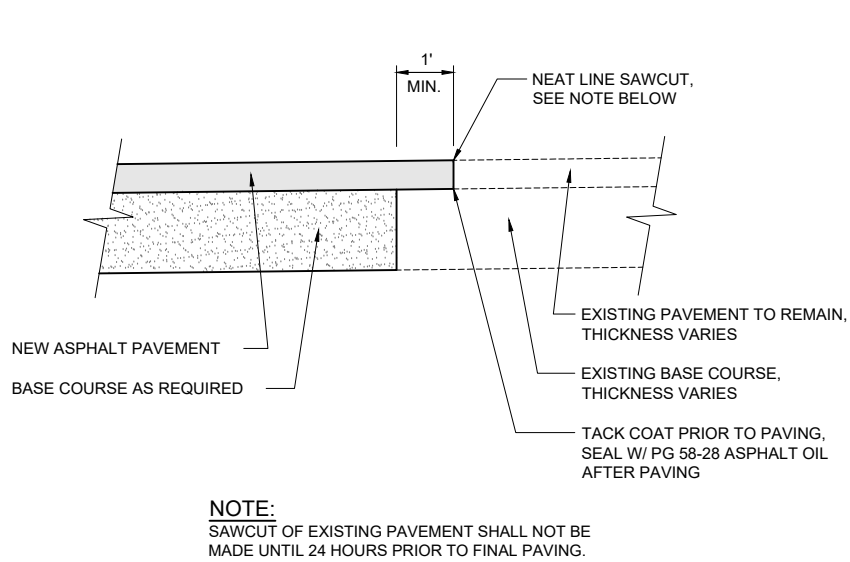
SHEET C100 NOTES:

1. EXISTING 2" POLY WATER LINE WILL BE FLUSHED, DISINFECTED AND PRESSURE TESTED IN ACCORDANCE WITH CBJ STANDARD SPECIFICATIONS TO ENSURE COMPLIANCE WITH PUBLIC DRINKING WATER REGULATIONS.

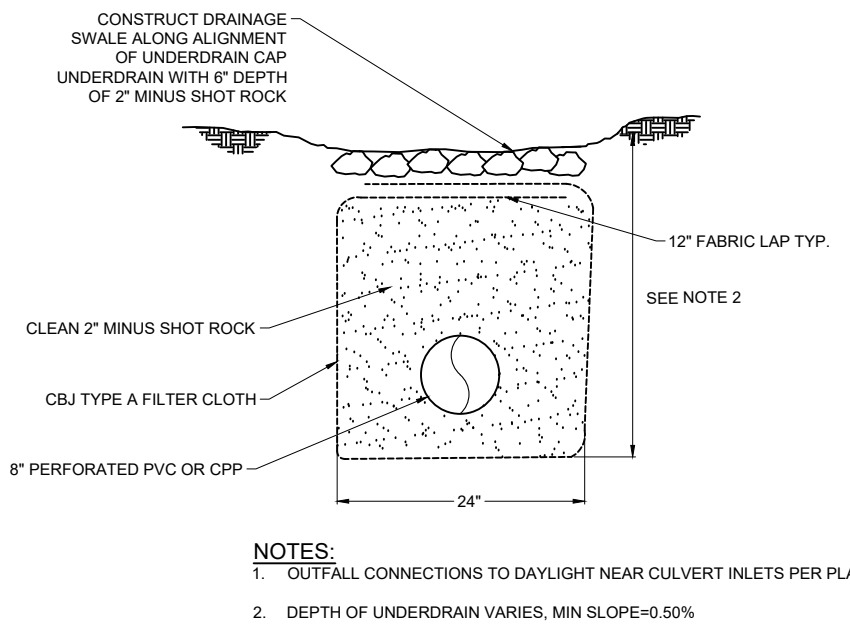
P:\2020\20098JN-Bicknell-Delta\CC3001 raw\20098JN.dwg PLOT: December 03, 2020 at: 9:59pm Mick Minisch

DESIGN MSM	DELTA DRIVE SUBDIVISION JUNEAU, AK	BICKNELL INC. QUALITY CONSTRUCTION	STATE OF ALASKA 49th Joseph M. Pusich CE 8152 12/03/20	PDC ENGINEERS PLAN • DESIGN • CONSTRUCT A BESPEX COMPANY 9109 Mendenhall Mall Rd. Ste. 4, Juneau, AK 99801 907.780.6060 AECC605	TYPICAL SECTIONS	DATE: Dec 03, 2020
DRAWN MSM						PDC No. 20098JN
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APPROVED JMP						
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No.	DATE	REVISION	BY	APRVD.	SHEET	C100

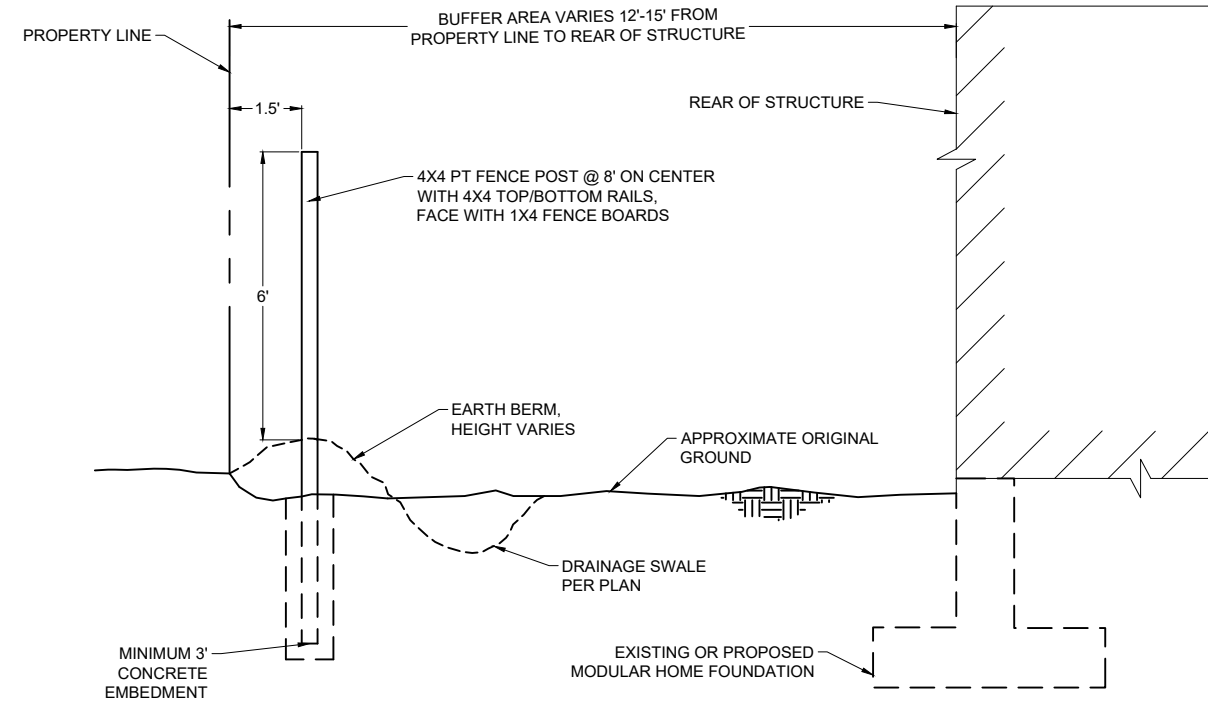
Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report



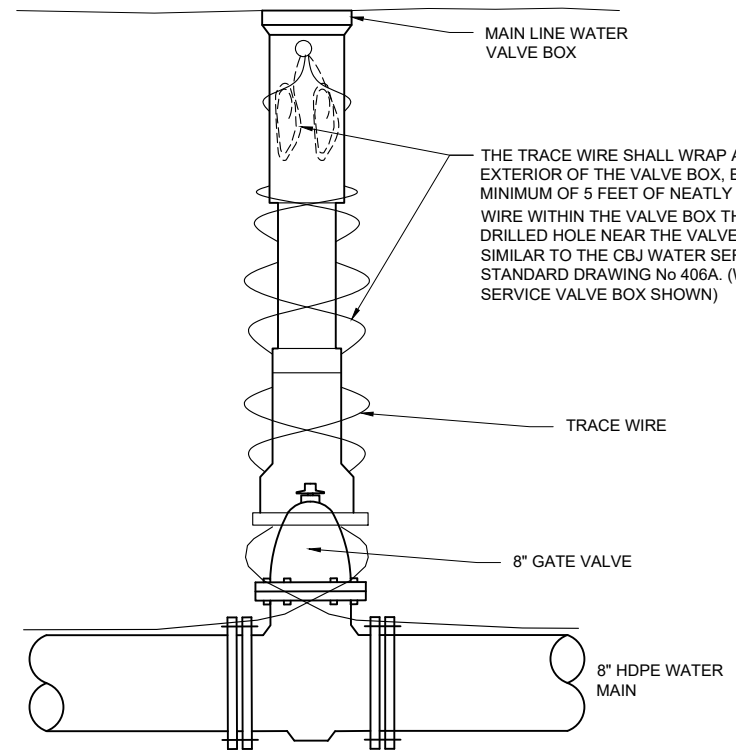
1 PAVEMENT MATCH DETAIL
C101 SCALE: NTS



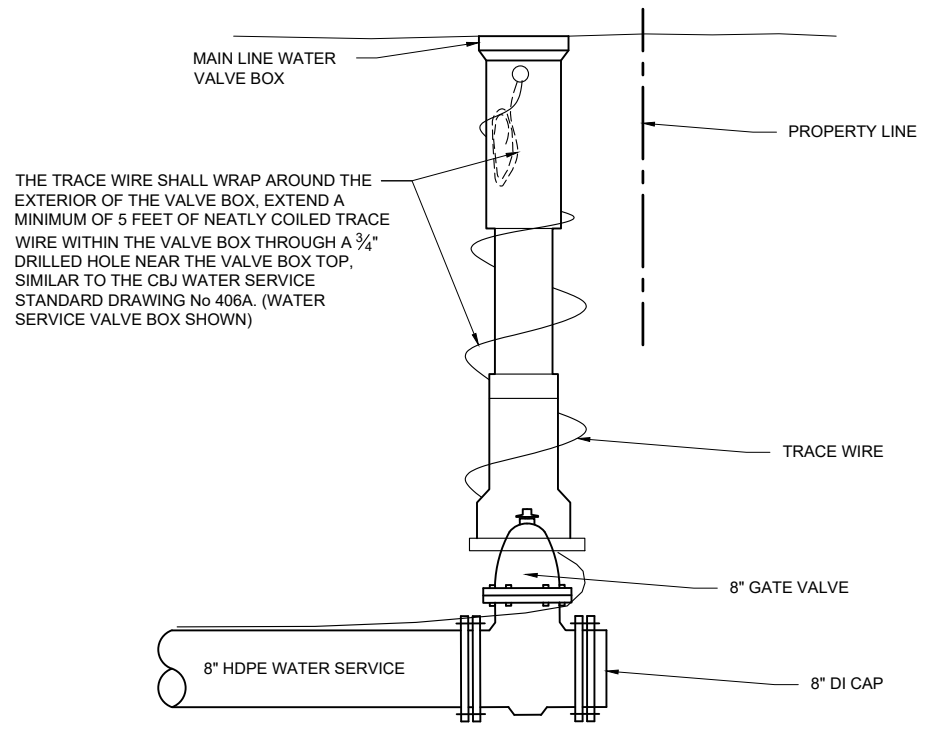
2 8" UNDERDRAIN DETAIL
C101 SCALE: NTS



3 TYPICAL FENCE AT REAR OF DWELLING
C101 SCALE: 1"=2'



4 MAIN LINE VALVE TRACE WIRE TERMINATION DETAIL
C101 SCALE: NTS



5 WATER SERVICE VALVE TRACE WIRE TERMINATION DETAIL
C101 SCALE: NTS

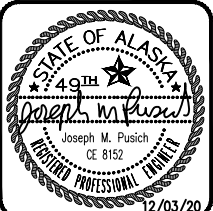
P:\2020\20098JN-Bicknell-Delta\CC3001 raw\20098JN.dwg PLOT: December 03, 2020 at: 9:59pm Mickl, Minich

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APPROVED	JMP
FILE:	

No.	DATE	REVISION	BY	APPRD.

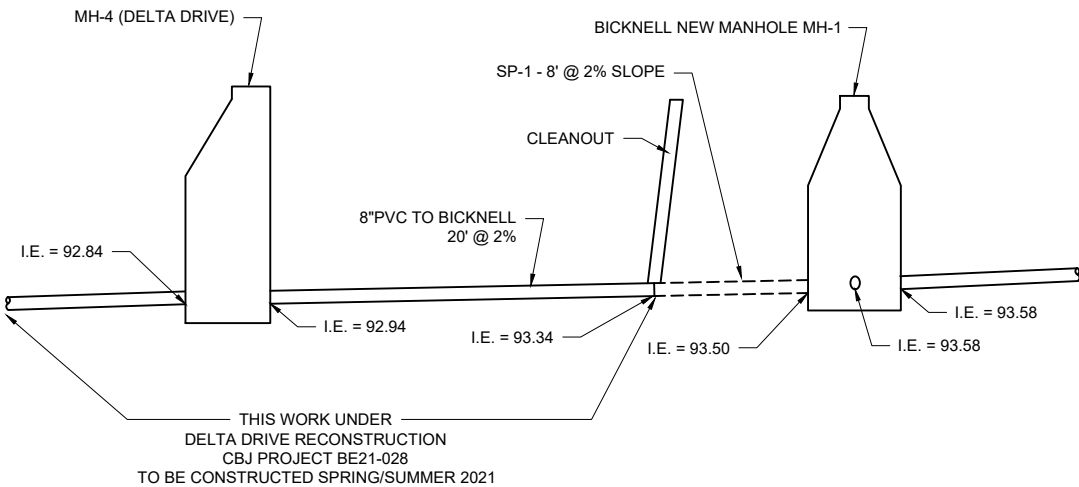
DELTA DRIVE
SUBDIVISION

JUNEAU, AK



CONSTRUCTION DETAILS

DATE: Dec 03, 2020
PDC No. 20098JN
SHEET
C101



1 SEWER PROFILE CONNECTION
C102 SCALE: NTS

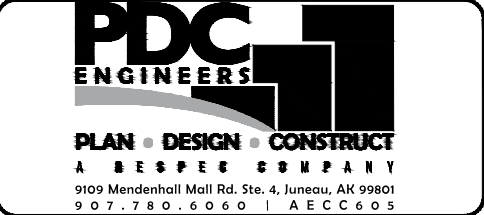
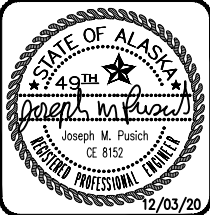
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No.	DATE	REVISION	BY	APRVD.

DELTA DRIVE
SUBDIVISION

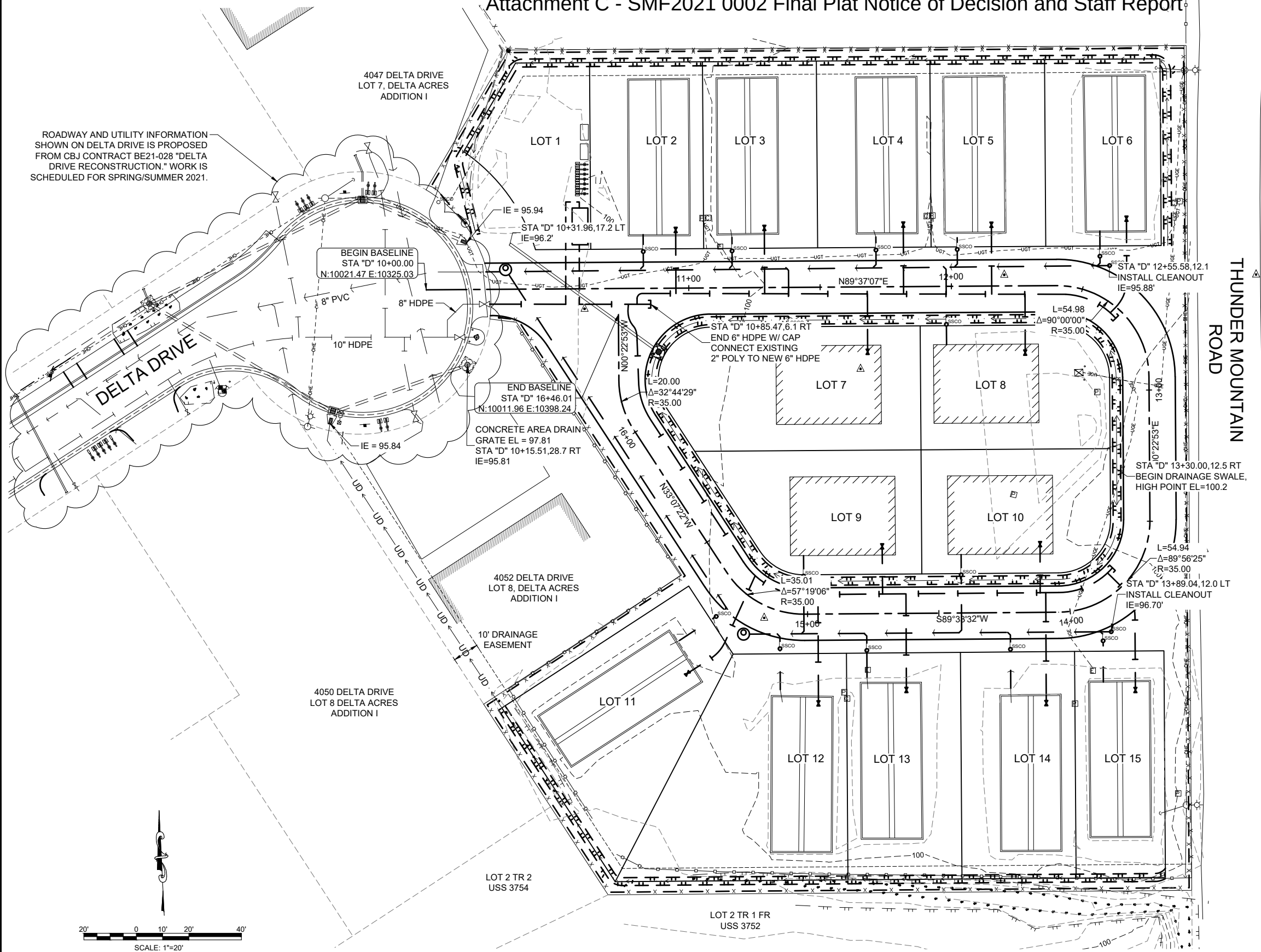
JUNEAU, AK



CONSTRUCTION DETAILS

DATE: Dec 03, 2020
PDC No. 20098JN
SHEET
C102

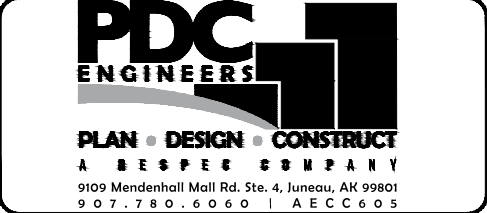
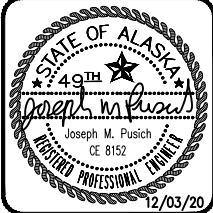
DIAL BEFORE YOU DIG!
586-1333
U/G POWER, TELEPHONE & T.V.
SHOWN ON THIS DRAWING INDICATE
EXISTENCE ONLY AND DO NOT
SUBSTITUTE FOR FIELD LOCATES
FOR ACS AND GCI LOCATES
DIAL THE 811 ALASKA DIGLINE



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No.	DATE	REVISION	BY	APPRVD.

DELTA DRIVE
SUBDIVISION
JUNEAU, AK



OVERALL SITE PLAN

DATE: Dec 03, 2020
PDC No. 20098JN
SHEET
C200

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

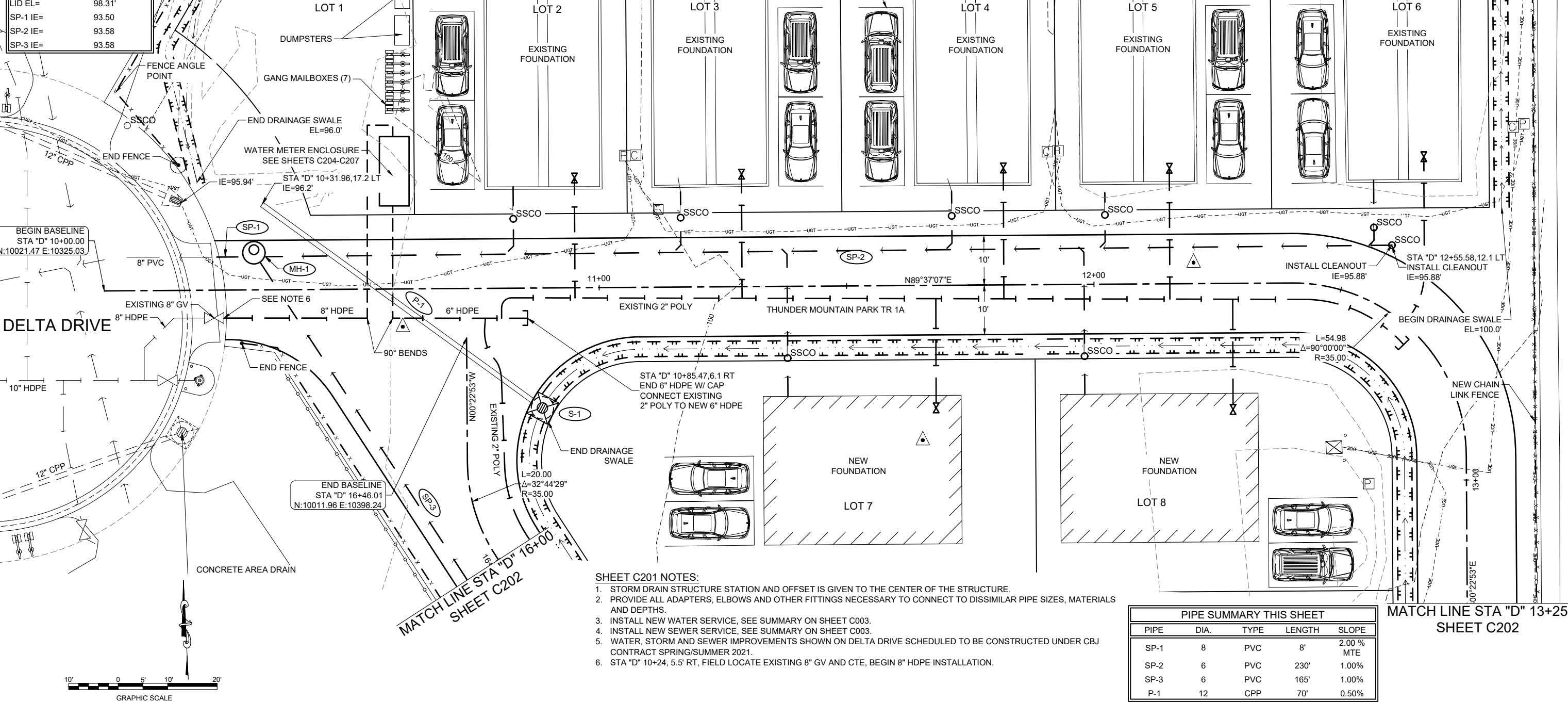
DIAL BEFORE YOU DIG!
586-1333

U/G POWER, TELEPHONE & T.V.
SHOWN ON THIS DRAWING INDICATE
EXISTENCE ONLY AND DO NOT
SUBSTITUTE FOR FIELD LOCATES
FOR ACS AND GCI LOCATES
DIAL THE 811 ALASKA DIGLINE

4047 DELTA DRIVE
LOT 7, DELTA ACRES ADDITION I

MH-1	TYPE I MH
STA "D" 10+30.3, 7.5 LT	
LID EL=	98.31'
SP-1 IE=	93.50
SP-2 IE=	93.58
SP-3 IE=	93.58

S-1	CBJ TYPE III W/ AD
STA "D" 16+31.8 15.2 RT	
GRATE EL=	98.75'
P-1 IE=	96.55'
16" SUMP	



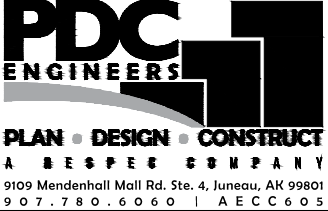
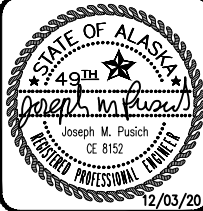
- SHEET C201 NOTES:
1. STORM DRAIN STRUCTURE STATION AND OFFSET IS GIVEN TO THE CENTER OF THE STRUCTURE.
 2. PROVIDE ALL ADAPTERS, ELBOWS AND OTHER FITTINGS NECESSARY TO CONNECT TO DISSIMILAR PIPE SIZES, MATERIALS AND DEPTHS.
 3. INSTALL NEW WATER SERVICE, SEE SUMMARY ON SHEET C003.
 4. INSTALL NEW SEWER SERVICE, SEE SUMMARY ON SHEET C003.
 5. WATER, STORM AND SEWER IMPROVEMENTS SHOWN ON DELTA DRIVE SCHEDULED TO BE CONSTRUCTED UNDER CBJ CONTRACT SPRING/SUMMER 2021.
 6. STA "D" 10+24, 5.5' RT, FIELD LOCATE EXISTING 8" GV AND CTE, BEGIN 8" HDPE INSTALLATION.

PIPE SUMMARY THIS SHEET				
PIPE	DIA.	TYPE	LENGTH	SLOPE
SP-1	8	PVC	8'	2.00 % MTE
SP-2	6	PVC	230'	1.00%
SP-3	6	PVC	165'	1.00%
P-1	12	CPP	70'	0.50%

DESIGN	MSM
DRAWN	MSM
CHECK	JMP
APPROVED	JMP
FILE:	

No.	DATE	REVISION	BY	APRVD.

DELTA DRIVE
SUBDIVISION
JUNEAU, AK

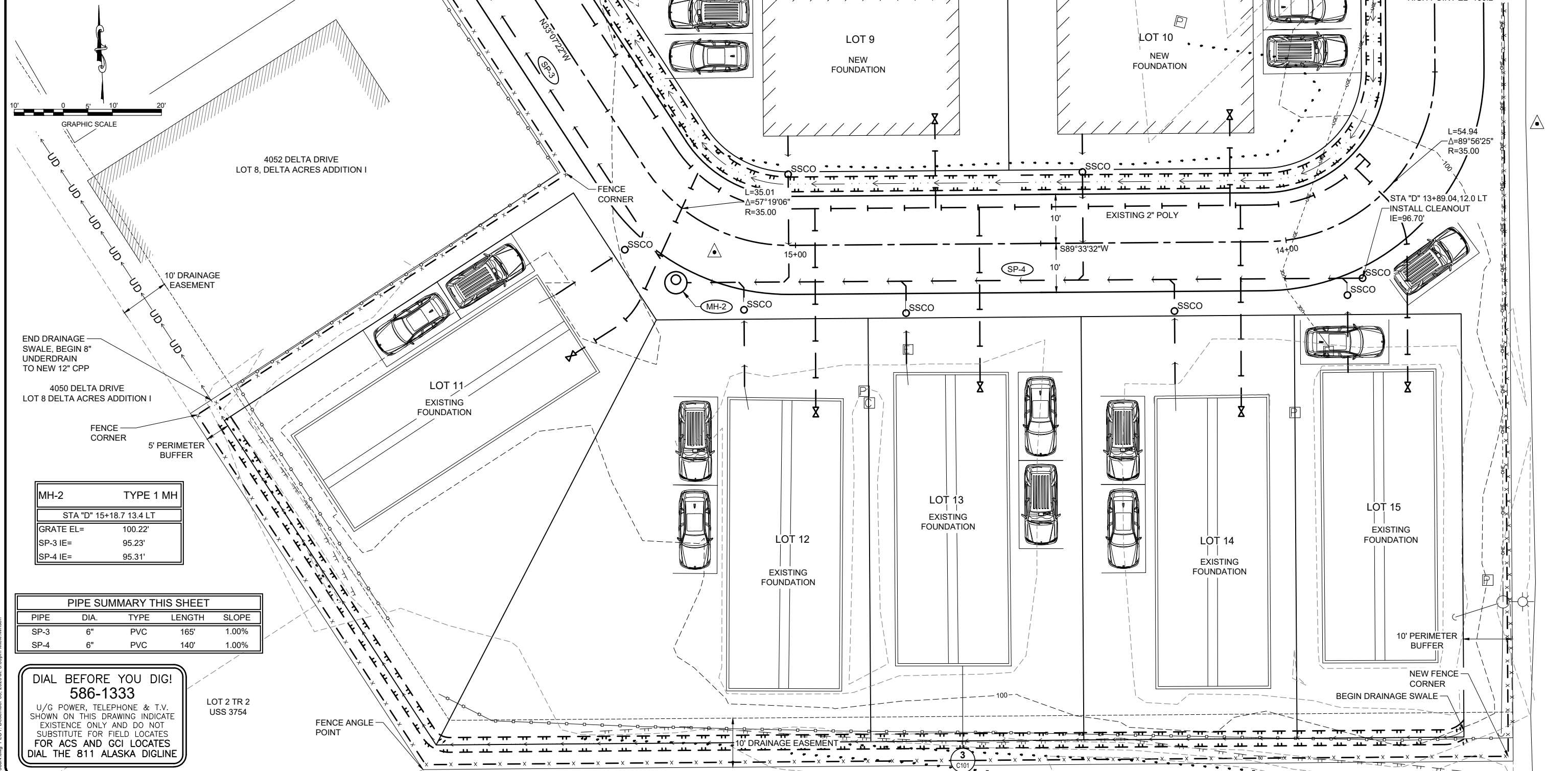


SITE & UTILITY PLAN

DATE: Dec 03, 2020
PDC No. 20098JN
SHEET
C201

SHEET C202 NOTES:

1. STORM DRAIN STRUCTURE STATION AND OFFSET IS GIVEN TO THE CENTER OF THE STRUCTURE. FRAME ELEVATION IS GIVEN TO THE TOP, FRONT OF FRAME.
2. PROVIDE ALL ADAPTERS, ELBOWS AND OTHER FITTINGS NECESSARY TO CONNECT TO DISSIMILAR PIPE SIZES, MATERIALS AND DEPTHS.
3. INSTALL NEW WATER SERVICE, SEE SUMMARY ON SHEET C003.
4. INSTALL NEW SEWER SERVICE, SEE SUMMARY ON SHEET C003.



MH-2	TYPE 1 MH
STA "D" 15+18.7 13.4 LT	
GRATE EL=	100.22'
SP-3 IE=	95.23'
SP-4 IE=	95.31'

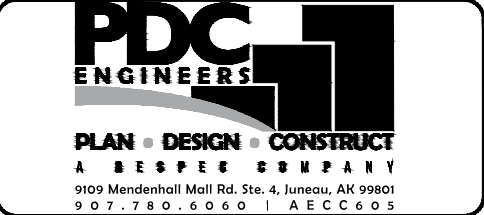
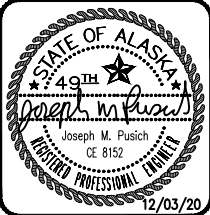
PIPE SUMMARY THIS SHEET				
PIPE	DIA.	TYPE	LENGTH	SLOPE
SP-3	6"	PVC	165'	1.00%
SP-4	6"	PVC	140'	1.00%

DIAL BEFORE YOU DIG!
586-1333
U/G POWER, TELEPHONE & T.V.
SHOWN ON THIS DRAWING INDICATE
EXISTENCE ONLY AND DO NOT
SUBSTITUTE FOR FIELD LOCATES
FOR ACS AND GCI LOCATES
DIAL THE 811 ALASKA DIGLINE

DESIGN MSM
DRAWN MSM
CHECK JMP
APPROVED JMP
FILE:

No.	DATE	REVISION	BY	APRVD.

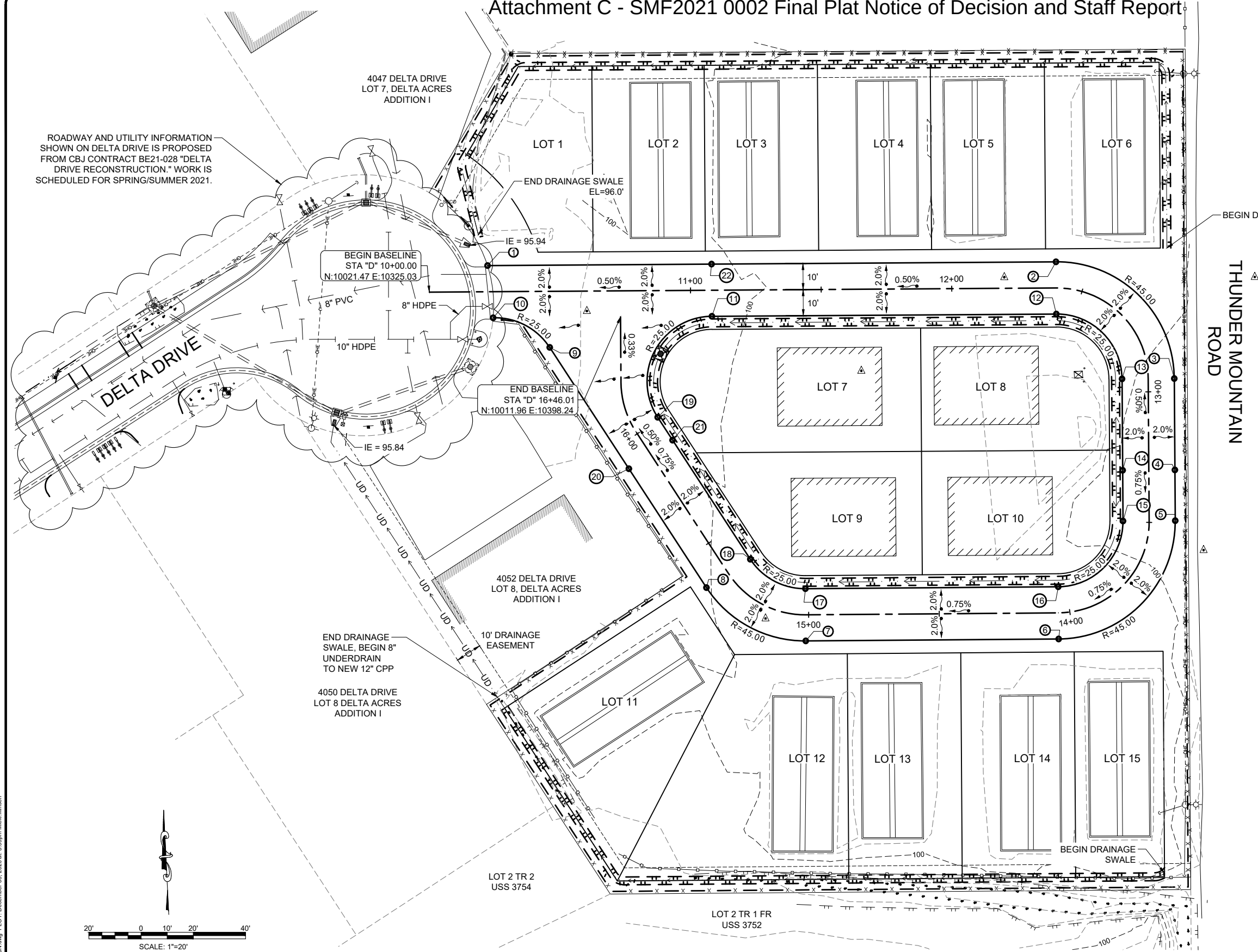
DELTA DRIVE
SUBDIVISION
JUNEAU, AK



SITE & UTILITY PLAN

DATE: Dec 03, 2020
PDC No. 20098JN
SHEET
C202

DIAL BEFORE YOU DIG!
586-1333
U/G POWER, TELEPHONE & T.V.
SHOWN ON THIS DRAWING INDICATE
EXISTENCE ONLY AND DO NOT
SUBSTITUTE FOR FIELD LOCATES
FOR ACS AND GCI LOCATES
DIAL THE 811 ALASKA DIGLINE

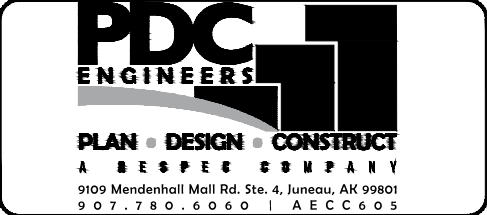
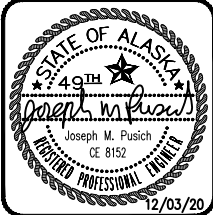


GRADE POINT SUMMARY TABLE THIS SHEET				
POINT No.	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	10031.62	10347.33	98.29 *	EDGE OF PAVEMENT/MTE
2	10033.07	10564.96	100.32	EDGE OF PAVEMENT/PC
3	9988.37	10610.26	100.88	EDGE OF PAVEMENT/PT
4	9953.35	10610.49	101.24	EDGE OF PAVEMENT/HIGH POINT
5	9933.92	10610.62	101.09	EDGE OF PAVEMENT/PC
6	9888.64	10565.97	100.68	EDGE OF PAVEMENT/PT
7	9887.89	10469.17	99.97	EDGE OF PAVEMENT/PC
8	9908.30	10431.14	99.67	EDGE OF PAVEMENT/PT
9	10000.30	10371.11	98.59	EDGE OF PAVEMENT/PC
10	10011.64	10349.47	98.34 *	EDGE OF PAVEMENT/PT/MTE
11	10012.19	10433.23	99.66	EDGE OF PAVEMENT/PT
12	10013.07	10565.10	100.32	EDGE OF PAVEMENT/PC
13	9988.24	10590.26	100.88	EDGE OF PAVEMENT/PT
14	9953.22	10590.50	101.24	EDGE OF PAVEMENT/HIGH POINT
15	9933.79	10590.62	101.09	EDGE OF PAVEMENT/PC
16	9908.64	10565.82	100.68	EDGE OF PAVEMENT/PT
17	9907.89	10469.02	99.97	EDGE OF PAVEMENT/PC
18	9919.17	10447.92	99.67	EDGE OF PAVEMENT/PT
19	9973.53	10412.46	99.19	EDGE OF PAVEMENT/PC
20	9953.85	10401.42	99.29	EDGE OF PAVEMENT
21	9964.78	10418.17	99.29	EDGE OF PAVEMENT
22	10032.19	10433.09	99.66	EDGE OF PAVEMENT

*CBJ DELTA DRIVE RECONSTRUCTION TOP OF ASPHALT PAVEMENT ELEVATION

DESIGN	MSM				
DRAWN	MSM				
CHECK	JMP				
APPROVED	JMP				
FILE:					
No.	DATE	REVISION		BY	APPRVD.

DELTA DRIVE
SUBDIVISION
JUNEAU, AK



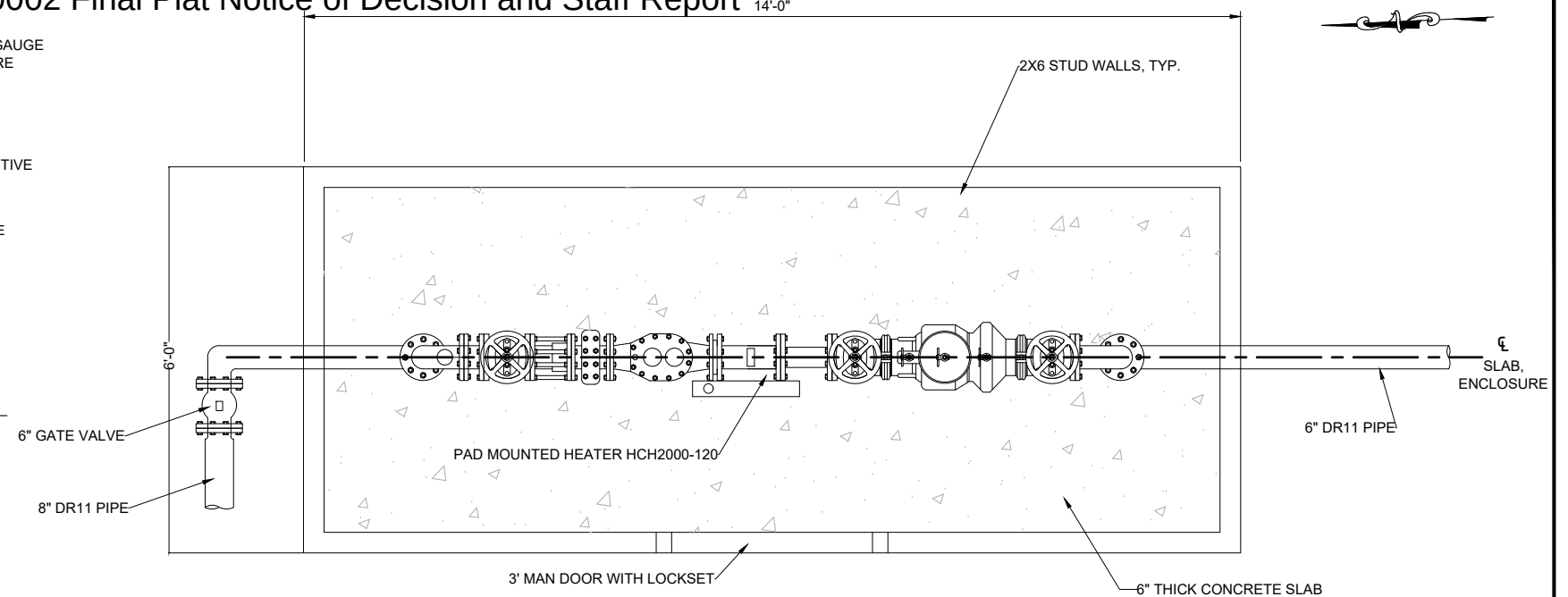
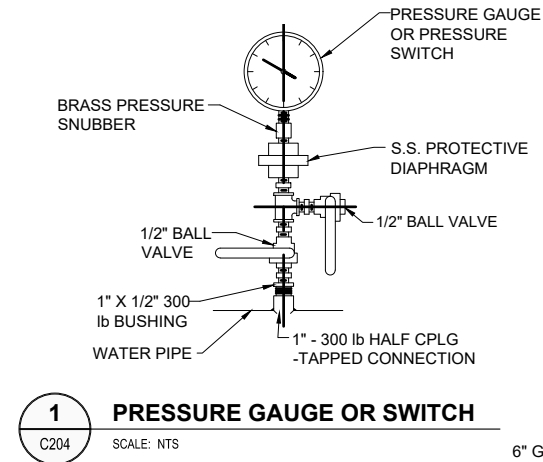
GRADING PLAN

DATE: Dec 03, 2020
PDC No. 20098JN
SHEET
C203

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report 14'-0"

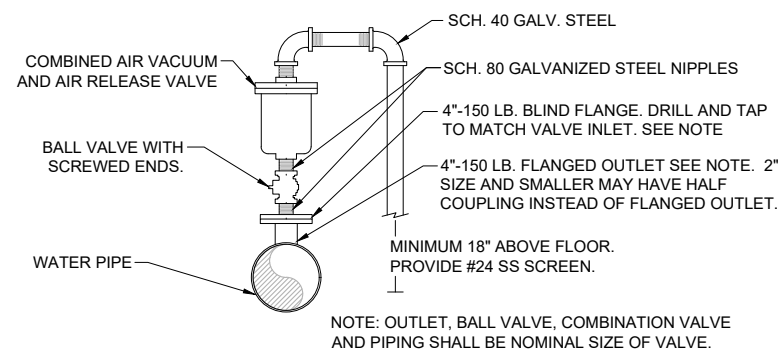
NOTES:

1. CBJ SPECIFICATION 02601 - WATER SYSTEM AND 02602 - VALVES, AND OTHER CBJ STANDARD SPECIFICATIONS APPLY EXCEPT AS MODIFIED BELOW.
2. ALL JOINTS BETWEEN THE CONNECTIONS TO THE MAINLINES ON BOTH SIDES OF THE METER ENCLOSURE SHALL BE RESTRAINED.
3. ALL BOLTS, NUTS AND WASHERS SHALL BE SERIES 300 STAINLESS STEEL.
4. ALL METALLIC VALVES AND FITTINGS SHALL BE FACTORY EPOXY COATED INSIDE AND OUT, 8 MILS MINIMUM.
5. BURIED FITTINGS SHALL BE THRUST BLOCKED PER CBJ STANDARD DETAILS.
6. DIP, HDPE PIPE AND PIPE STANDS ARE PER CBJ SECTION 02602.
7. ALL PIPE AND SPOOL PIECES ABOVE GRADE ARE TO BE FLANGED, WITH 125# FLANGES. USE A FLANGE ADAPTOR WITH THE CONNECTION TO HDPE.
8. GATE VALVES SHALL HAVE HAND WHEELS.
9. PRESSURE GAUGE IS TO BE STAINLESS STEEL, GLYCERIN FILLED, WITH A 3/4" OR 4-INCH FACE AND 150 TO 160 PSI PRESSURE RANGE.
10. THE GATE VALVE AHEAD OF THE METER IS TO BE FLXFL, WHILE THE VALVES ON EITHER SIDE OF THE DOUBLE CHECK MAY BE FLXVIC. VALVES SHALL COMPLY WITH AWWA C509 OR C515.
11. THE METER SHALL BE A 4-INCH NEPTUNE TRUFLO COMPOUND METER WITH A STRAINER.
12. THE DOUBLE CHECK VALVE SHALL BE A 6-INCH ZURN 350A WITH THE GATE VALVES, OR APPROVED EQUAL. THE DOUBLE CHECK SHALL MEET THE REQUIREMENTS OF AWWA C510 AND BE ASSE AND NSF LISTED.
13. TWO DUPLEX 120-V ELECTRICAL OUTLETS SHALL BE INSTALLED INSIDE THE ENCLOSURE. CONDUIT SHALL RUN FROM THE EXTERIOR MOUNTED DISCONNECT BOX NEAR THE ELECTORAL METER, UNDERGROUND, AND COME UP THROUGH THE CONCRETE SLAB. THE OUTLETS SHALL BE MOUNTED ABOVE THE FLOOR AND LOCATED FOR EASY ACCESS THROUGH THE PANELS.
14. ALL ELECTRICAL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICIAN AND COMPLY WITH ALL APPROPRIATE ELECTRICAL CODES. ANY REQUIRED ELECTRICAL PERMITS SHALL BE OBTAINED. COORDINATE WITH THE LOCAL ELECTRICAL UTILITY AS NECESSARY AND PROVIDE ANY EQUIPMENT THEY REQUIRE TO COMPLETE THEIR SERVICE TO THIS LOCATION.

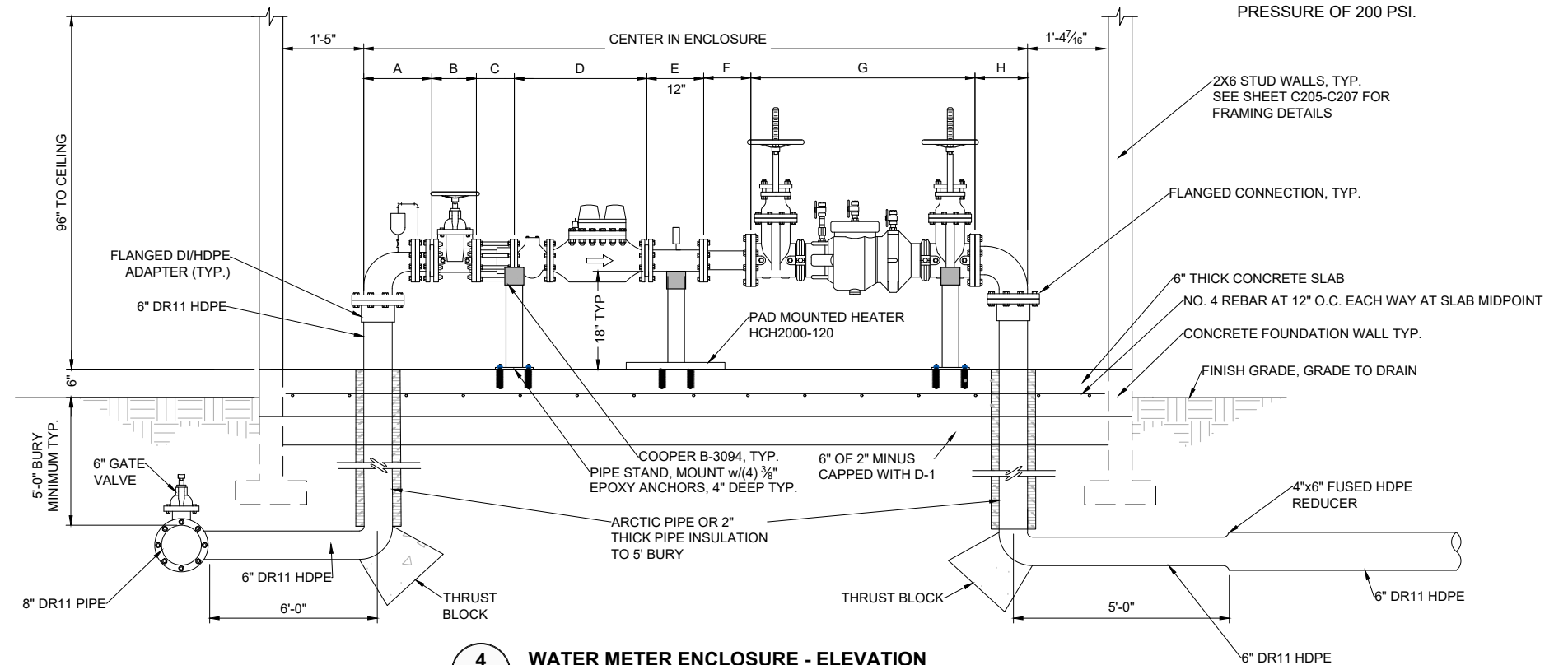


2 WATER METER ENCLOSURE - PLAN

DESIGNATION	COMPONENT DESCRIPTION
A	6X4" DI REDUCING 90° ELBOW W/ TAP AND 1" AIR RELEASE VALVE
B	4" NRS GATE VALVE
C	4" DISMANTLING JOINT, SET TO 8" ±
D	4" METER W/ STRAINER
E	4" DI PIPE SPOOL W/ 1" TAPPED CONNECTION, SAMPLING PORT, AND PRESSURE GAGUE (SEE DETAIL)
F	4" SPOOL PIECE
G	4" DOUBLE CHECK VALVE
H	4" DI 90° BEND



3 AIR/VACUUM & AIRE RELEASE VALVE ASSEMBLY

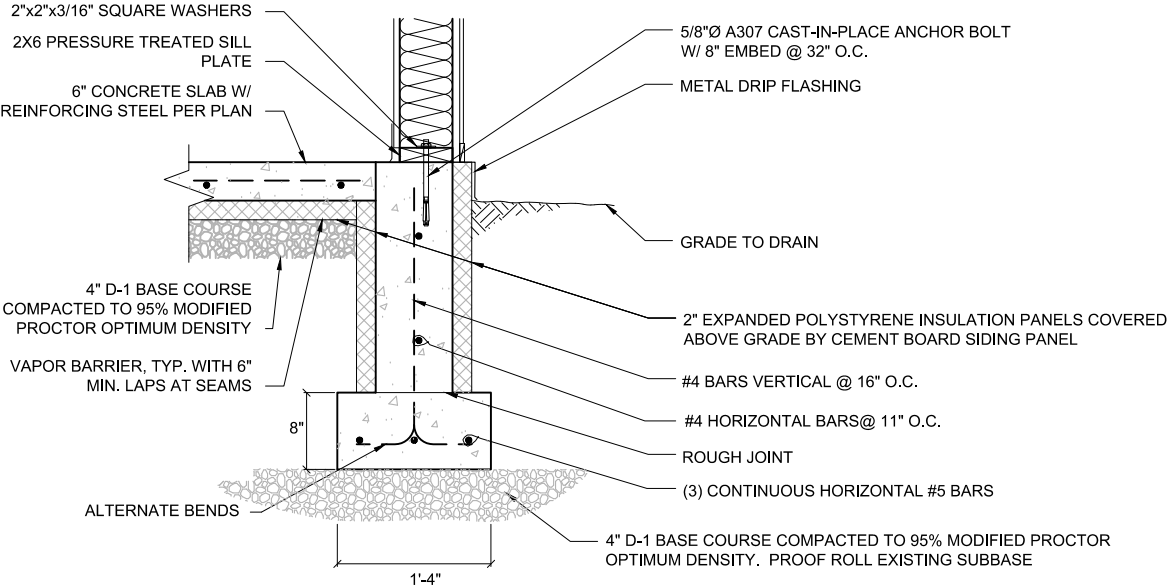


4 WATER METER ENCLOSURE - ELEVATION

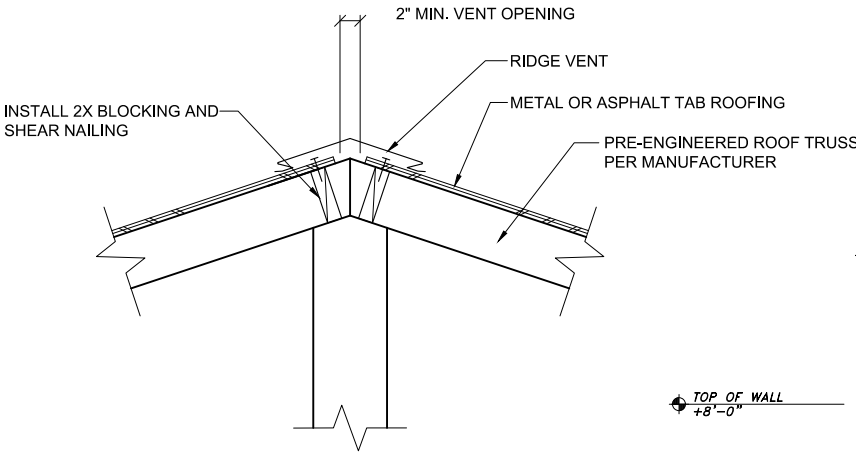
- NOTES:

1. ALL JOINTS TO BE FUSED, FLANGED, OR RESTRAINED TO WITHSTAND A MINIMUM PRESSURE OF 200 PSI.

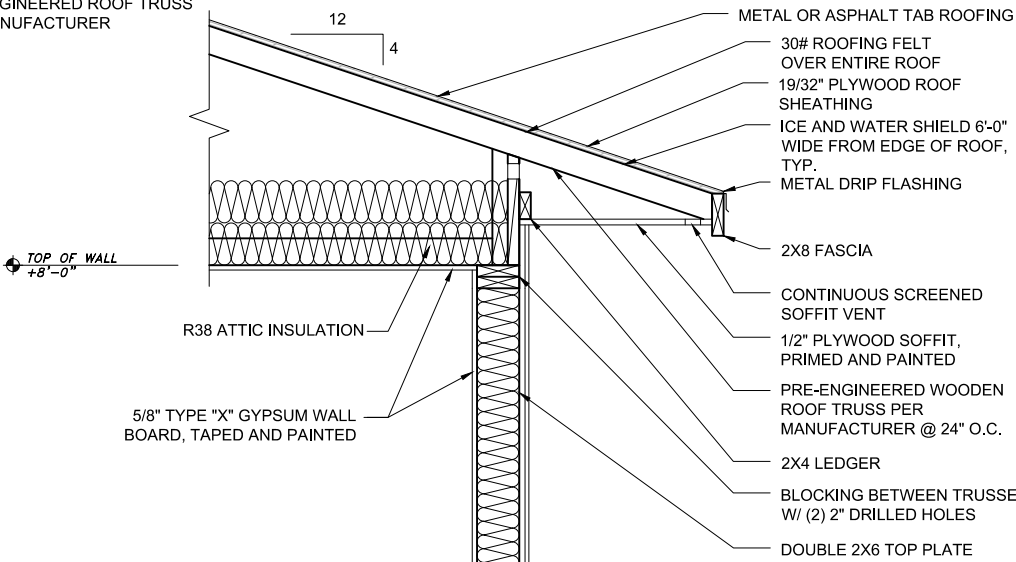
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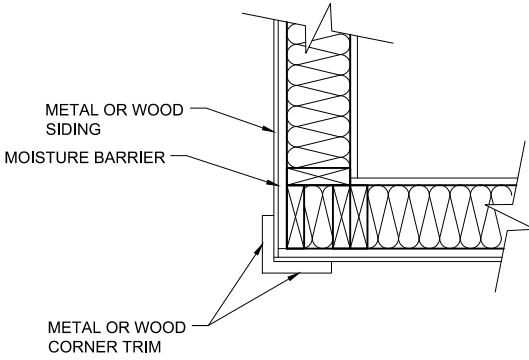
1 FOUNDATION AND STEM WALL DETAIL
C205 SCALE: NTS



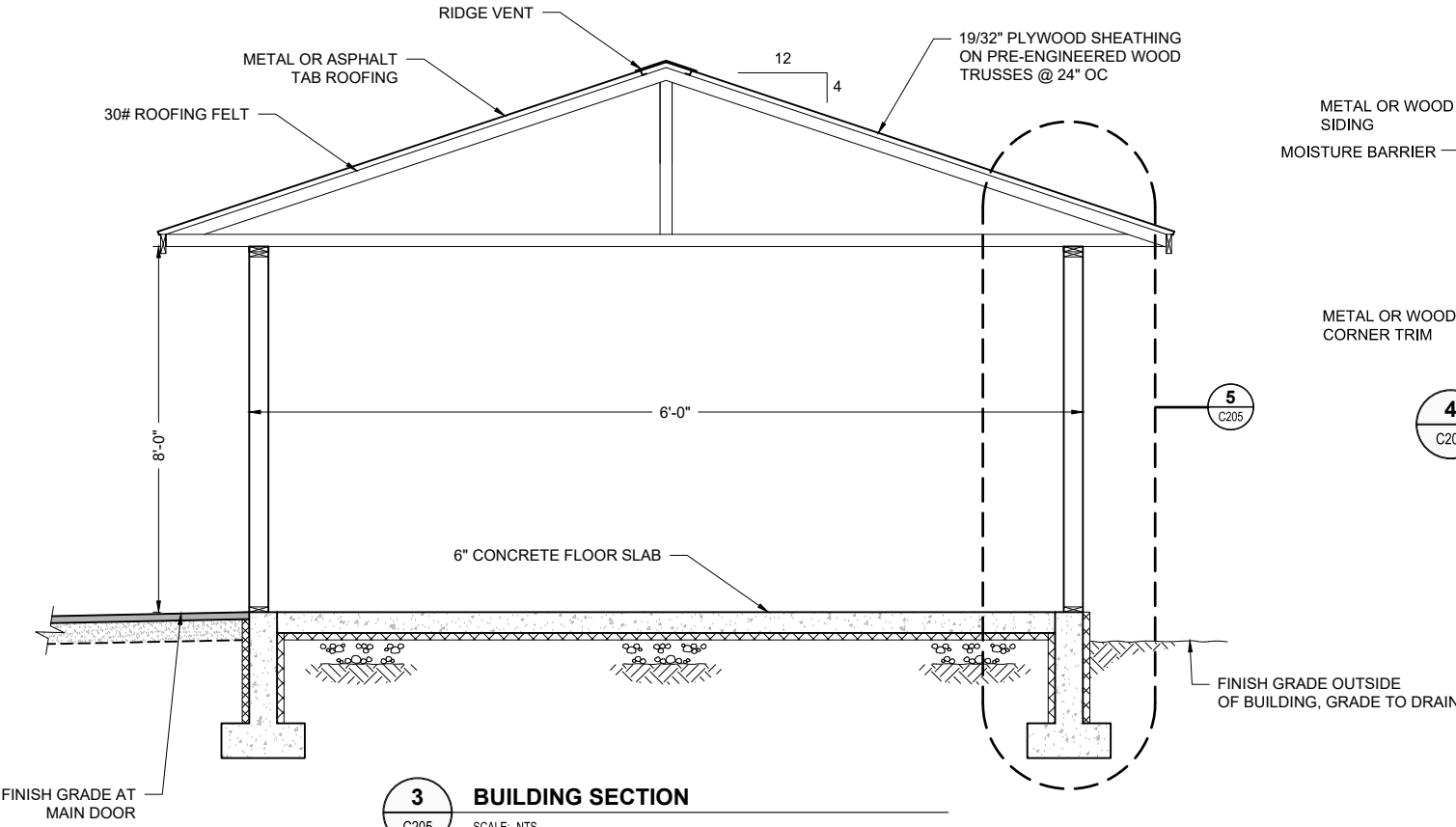
2 ROOF RIDGE VENT DETAIL
C205 SCALE: NTS



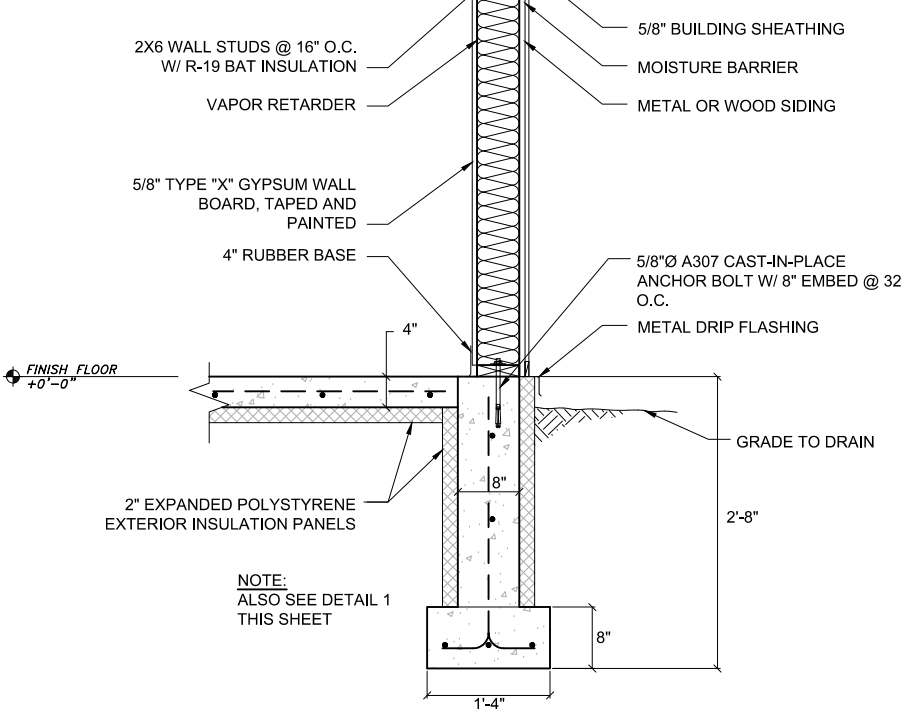
5 WALL SECTION
C205 SCALE: NTS



4 OUTSIDE CORNER DETAIL
C205 SCALE: NTS



3 BUILDING SECTION
C205 SCALE: NTS

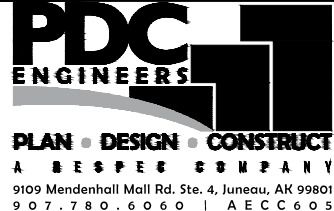
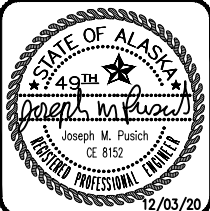


P:\2020\20098JN-Bicknell-Delta\CC2001 raw\20098JN.dwg PLOT: December 03, 2020 at: 9:59pm Mick Minich

DESIGN MSM
DRAWN MSM
CHECK JMP
APPROVED JMP
FILE:

No.	DATE	REVISION	BY	APRVD.

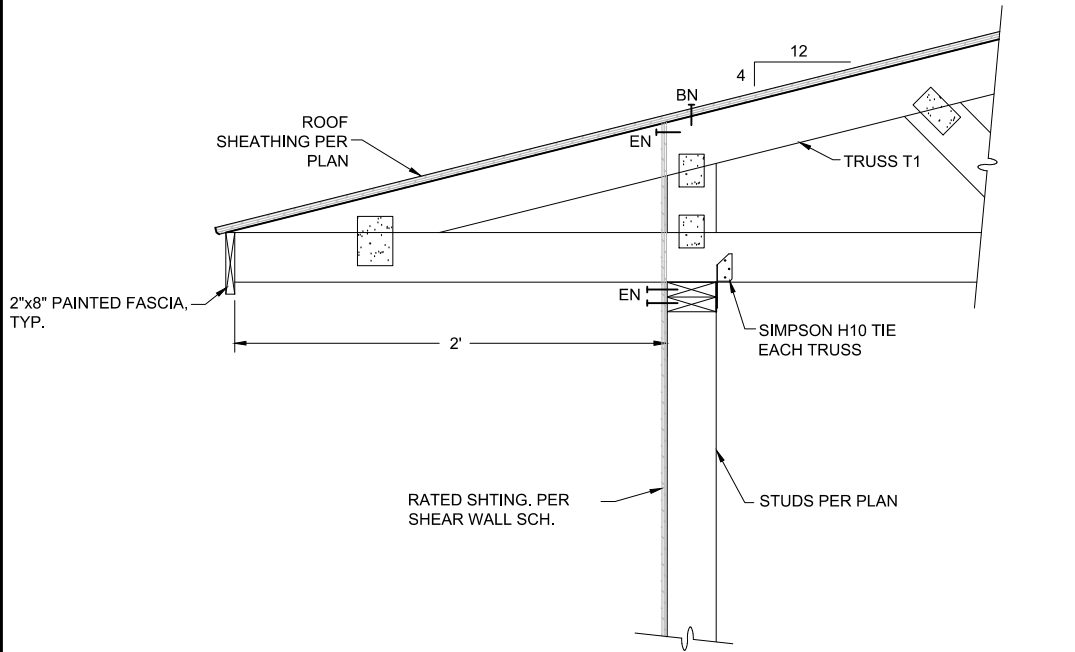
DELTA DRIVE
SUBDIVISION
JUNEAU, AK



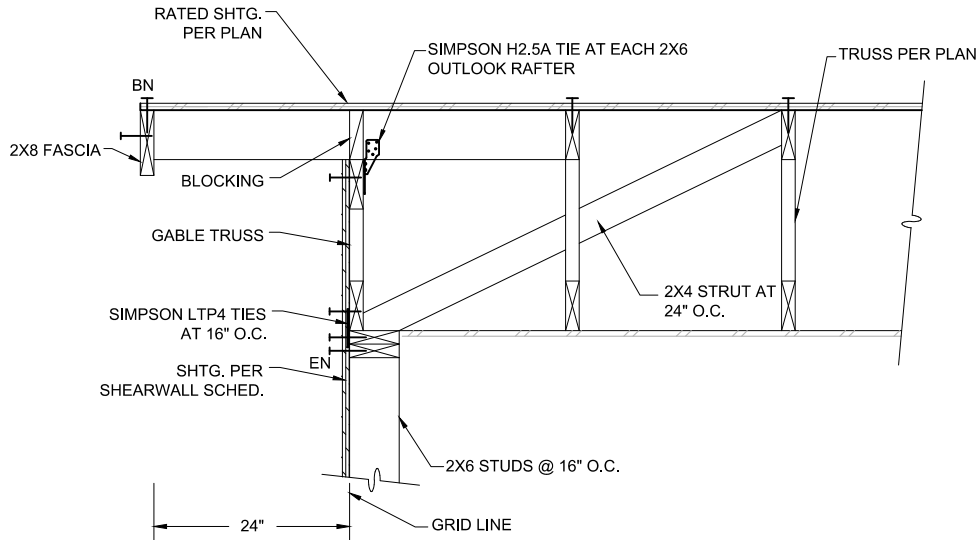
WATER METER
ENCLOSURE DETAILS

DATE: Dec 03, 2020
PDC No. 20098JN
SHEET
C205

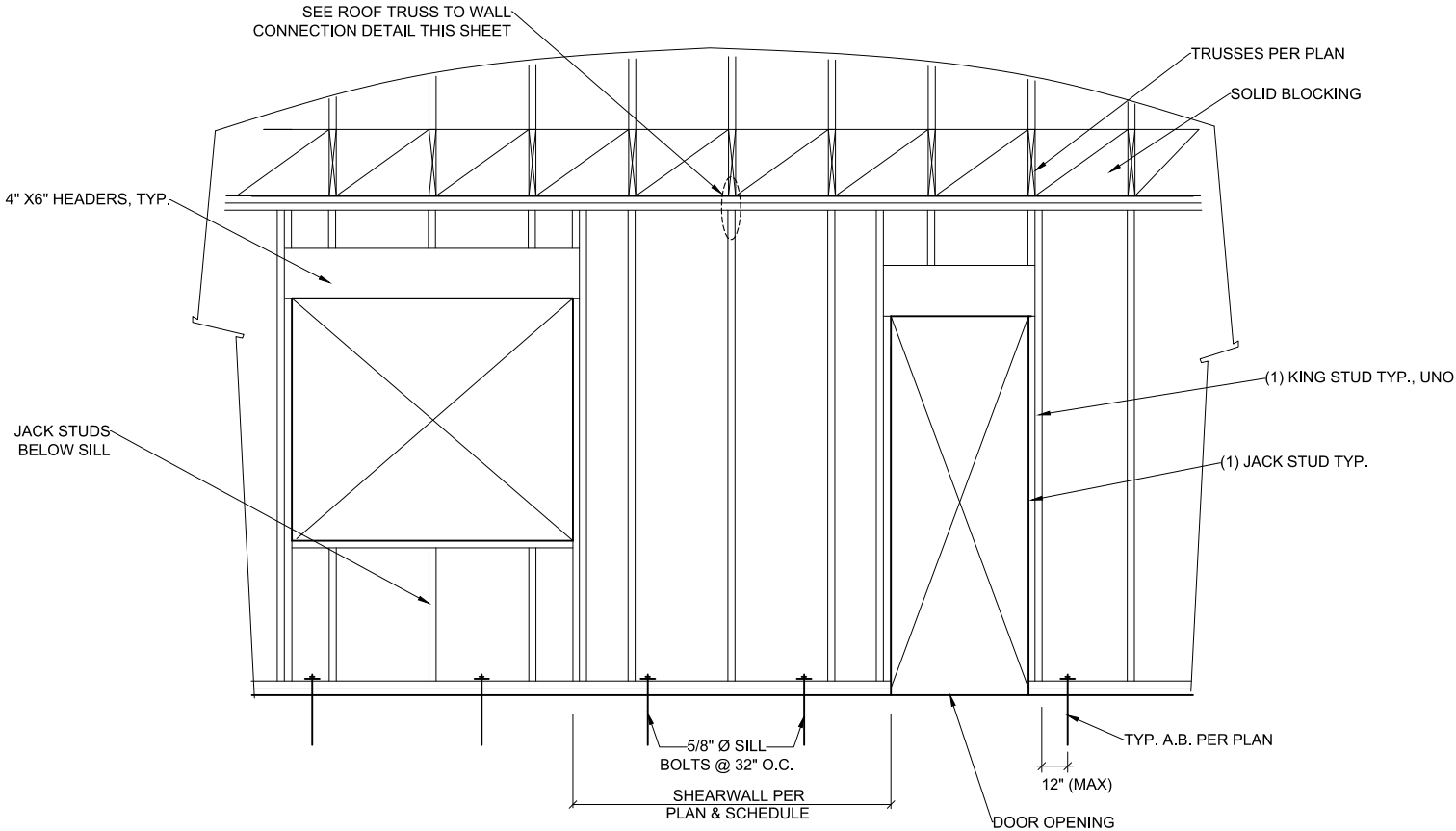
- 1. WHERE NO STUD TO STUD NAILING IS INDICATED, NAIL STUDS TOGETHER w/ 16d @ 12"o.c., TYP.
- 2. REF. PLANS FOR STUD SIZE & SPACING



1 ROOF TRUSS TO WALL CONNECTION
C206 SCALE: NTS



2 GABLE END DETAIL
C206 SCALE: NTS



3 TYPICAL STUD FRAMING
C206 SCALE: NTS

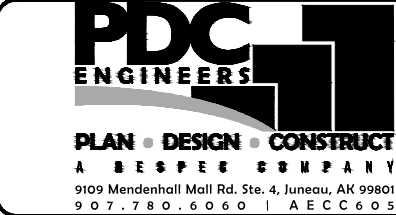
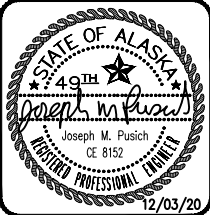
FRAMING NAILING SCHEDULE			
CONNECTION	NAILING	CONNECTION	NAILING
TOP PLATE TO STUD, END NAIL	2x4 (2)- 16d 2x6 (3)- 16d 1 3/4"x5 1/2" LVL (3)-16d 1 3/4"x7 1/4" LVL (4)-16d 1 3/4"x9 1/4" LVL (5)-16d 1 3/4"x11 1/4" LVL (6)-16d	TOP PLATE LAPS (4'-0" MINIMUM)	16d AT 6" O.C.
		BUILT-UP HEADERS AND BEAMS	16d AT 16" O.C. ALONG TOP AND BOTTOM EDGE
		BUILT-UP COLUMNS BELOW BEAMS, FACE NAIL	16d AT 16" O.C. - EACH FACE
STUD TO SILL PLATE, END NAIL	2x4 (2)- 16d 2x6 (3)- 16d 1 3/4"x5 1/2" LVL (3)-16d 1 3/4"x7 1/4" LVL (4)-16d 1 3/4"x9 1/4" LVL (5)-16d 1 3/4"x11 1/4" LVL (6)-16d	BUILT-UP CORNER STUDS (3 STUDS MINIMUM)	16d AT 24" O.C.
		BACKING AND BLOCKING AT TRUSSES AND 2x FRAMING, END NAIL OR TOE NAIL	(2)- 16d EACH END
DOUBLE SILL PLATES, FACE NAIL (STAGGER)	10d AT 12" O.C.	BACKING AND BLOCKING AT I-JOIST FRAMING	SIMPSON Z2 OR EQUAL AT EACH END [W/(4)-10dx1 1/2" NAILS]
DOUBLE STUDS, FACE NAIL (STAGGER)	10d AT 12" O.C. - EACH FACE		
DOUBLE TOP PLATES, FACE NAIL	16d AT 24" O.C.		
TOP PLATES AT WALL INTERSECTIONS, FACE NAIL	(2)- 16d		

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DESIGN MSM
DRAWN MSM
CHECK JMP
APPROVED JMP
FILE:

No.	DATE	REVISION	BY	APRVD.

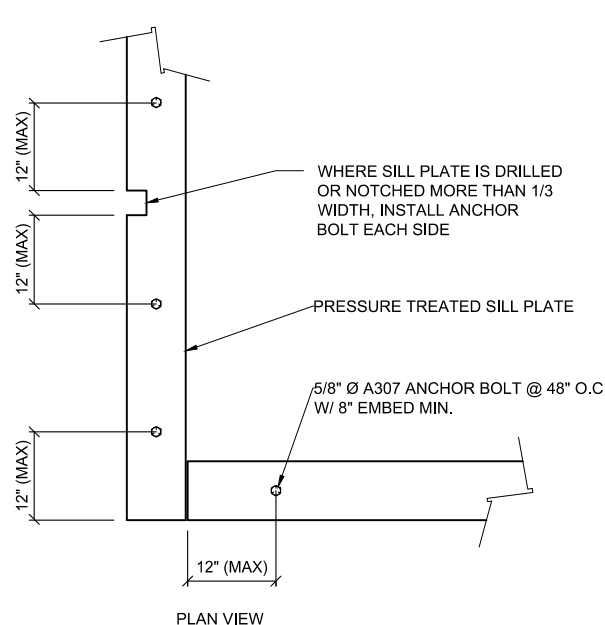
DELTA DRIVE
SUBDIVISION
JUNEAU, AK



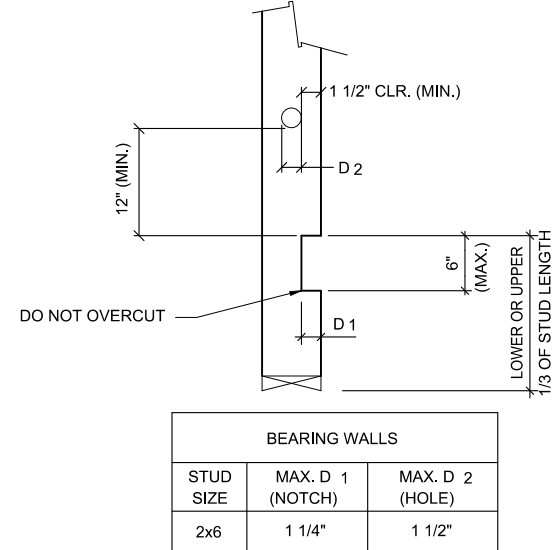
WATER METER
ENCLOSURE DETAILS

DATE: Dec 03, 2020
PDC No. 20098JN
SHEET
C206

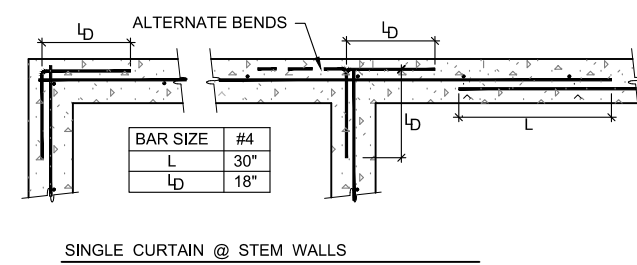
Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report



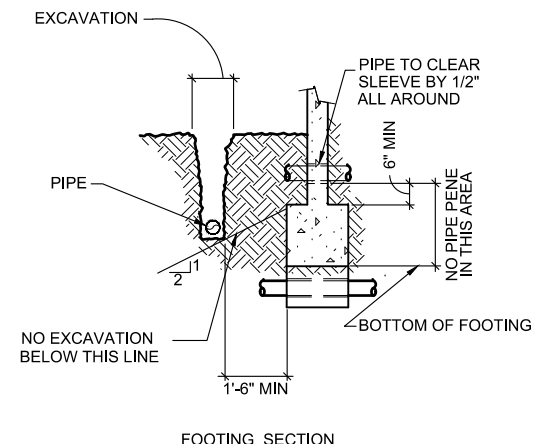
1 SILL PLATE BOLTING TO CONCRETE
C207 SCALE: NTS



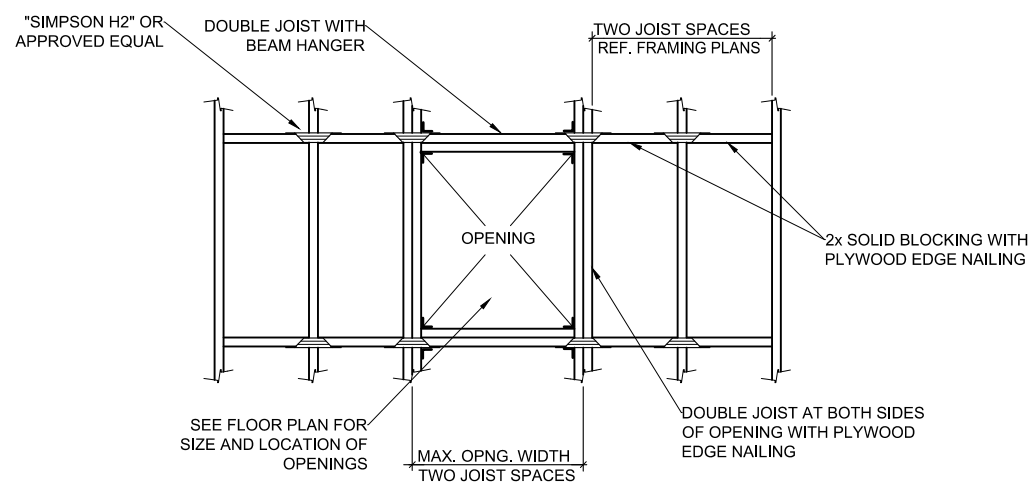
2 ALLOWABLE HOLES AND NOTCHES IN STUDS
C207 SCALE: NTS



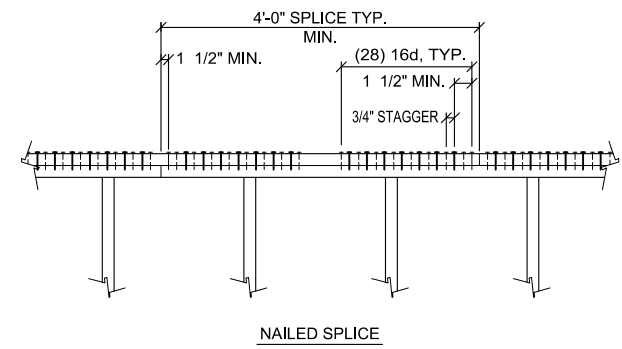
3 WALL & FOOTING REINFORCING AT CORNERS & INTERSECTIONS
C207 SCALE: NTS



4 PIPES & TRENCHES AT FOUNDATIONS
C207 SCALE: NTS

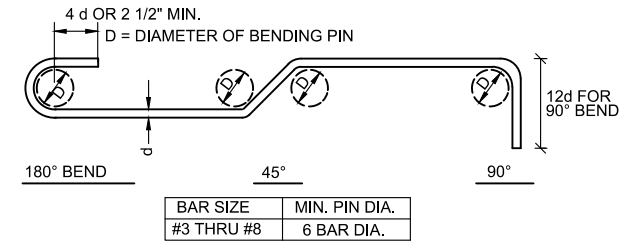


5 TYP. OPENINGS IN FLOORS AND ROOF
C207 SCALE: NTS



- NOTES:
1. MINIMUM PLATE SPLICE IS (28) 16d EA. SIDE OF EA. PLATE JOINT. MSTC78 IS ALTERNATE.
 2. STAGGER NAILS IN 2 ROWS.
 3. OCCURS AT TOP PLATES UNDER ROOF.

6 TYPICAL PLATE SPICE
C207 SCALE: NTS



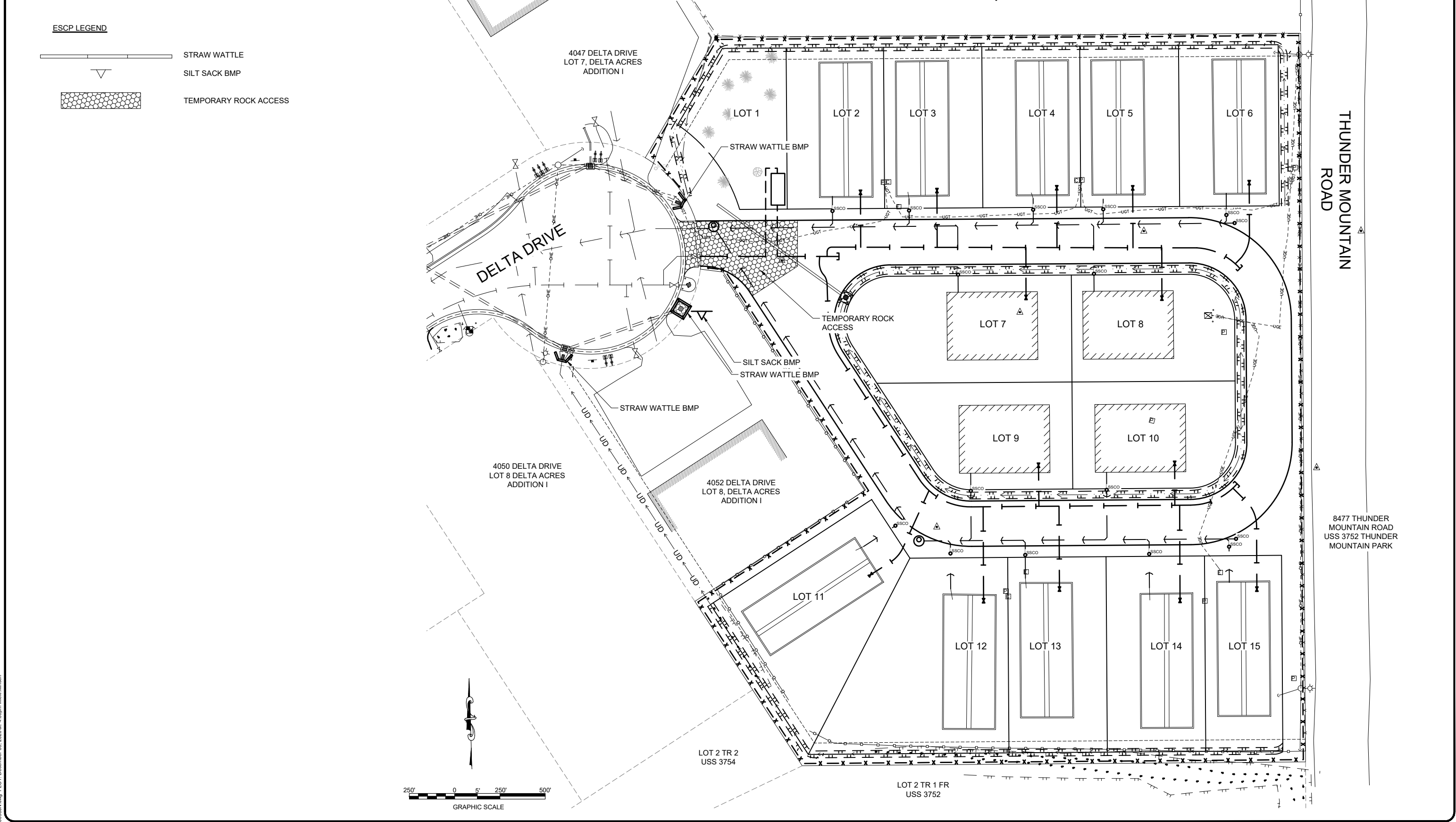
- LEGEND (FOR REINF. BENDS NOT SHOWN TO SCALE)
- DENOTES 90° BEND IN THE PLANE OF THE DWG.
 - DENOTES 90° BEND PERPENDICULAR TO THE PLANE OF THE DWG.
 - DENOTES BEND PERPENDICULAR TO THE PLANE OF THE DWG.
 - DENOTES BEND IN THE PLANE OF THE DWG.
 - DENOTES OFFSET IN THE PLANE OF THE DWG.

7 STANDARD HOOKS AND BENDS
C207 SCALE: NTS

P:\2020\20098JN-Bicknell-Delta\CC2001 raw\20098JN.dwg PLOT: December 03, 2020 at: 9:59pm Mick Minisch

DESIGN MSM	DELTA DRIVE SUBDIVISION JUNEAU, AK	BICKNELL INC. QUALITY CONSTRUCTION	STATE OF ALASKA 49th Joseph M. Pusich CE 8152 12/03/20	PDC ENGINEERS PLAN • DESIGN • CONSTRUCT A BESPEX COMPANY 9109 Mendenhall Mall Rd. Ste. 4, Juneau, AK 99801 907.780.6060 AECC605	WATER METER ENCLOSURE DETAILS	DATE: Dec 03, 2020
DRAWN MSM						PDC No. 20098JN
CHECK JMP						
APPROVED JMP						
FILE:						
No.	DATE	REVISION	BY	APRVD.	SHEET	C207

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report



DESIGN MSM	DELTA DRIVE SUBDIVISION JUNEAU, AK				EROSION & SEDIMENT CONTROL PLAN	DATE: Dec 03, 2020
DRAWN MSM						PDC No. 20098JN
CHECK JMP						
APPROVED JMP						
FILE:						
No.	DATE	REVISION	BY	APRVD.	SHEET	C300

P:\2020\20098JN-Bicknell-Delta\CC6001.dwg 2020098JN.dwg PLOT December 03, 2020 at: 4:00pm Mick Minich



SCALE: NTS



- SCALE: NTS



SCALE: NTS

DATE: Dec 03, 2020
DOC No. 20098JN

SHEET
C301

**TECHNICAL MEMORANDUM**

Client #	Bicknell Inc.	Date	10/2/2020
PDC #	20098JN	Prepared by	Sean Kelly, EIT
Project Name	Delta Drive Subdivision	Reviewed by	Mark Pusich, PE
Subject	Delta Drive Subdivision – Water Main Branch Sizing Memo		

Topic	Discussion
Introduction	Bicknell Inc. is the owner of Delta Drive subdivision and is proposing the replacement of a water main servicing the subdivisions lots. The subdivision includes 15 lots, 14 of which will have single family structures installed on the lots. The proposed water main installation will involve connecting a water submain off of the new 8" HDPE water line.
Existing Conditions	The existing subdivision includes 10 modular homes on concrete foundations with buildings previously removed. The inner island of the subdivision has four lots that have been recently cleared. The existing homes were served with ¾" water lines from the 2" main.
Peak Design Flow	The Delta Drive Subdivision is not a new development and is residential, so the flow design is straight forward. Testing data from the CBJ fire hydrant located at the cul-de-sac entrance of the subdivision was provided by the CBJ Water Department. Fixture count and pipe sizes were determined with the 2012 Uniform Plumbing Code, IAPMO/ANSI UPC1-2012.
Assumptions	For the design of the water main servicing the Delta Drive Subdivision several assumptions were made. The following are the assumptions made for this design: • Each home has two bathrooms which include shower with tub, sink and toilet. • Each home has a washing machine. • Each home has one hose bib. • Each home has a kitchen sink.
Fixture Count & Pipe Sizing	From the 2012 Uniform Plumbing Code, the following fixture counts (FC) were obtained from table 610.3 (attached) for private units:

Transforming Challenges into Solutions.

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Technical Memo
October 1, 2020
Page 2

Topic	Discussion
	• Lavatory (x2) – 2.0 FC • Water Closet, 1.6 GPF Gravity Tank (x2) – 5.0 FC • Bathtub or Combination Bath/Shower (x2) – 8.0 FC • Clothes Washer – 4.0 FC • Kitchen, domestic with or without dishwasher – 1.5 FC • Hose Bibb – 2.5
	These fixtures bring the total fixture count per residential unit to 23 FC.
	The available static pressure is 64 psi, provided by CBJ, at Delta Drive fire hydrant.
	The longest line necessary from the tee off of the 8" line is 250'.
	Due to the configuration of the water main having two branches off of the 8" water main, the total fixture count is determined with seven units instead of the total 14.
	Total fixture count (TFC) for seven units is as follows,
	$TFC = \left(\frac{23 \text{ FC}}{\text{UNIT}} \right) * 7 \text{ UNITS} = 161 \text{ FC}$
Design Recommendation	Using Table 610.4 from the 2012 Uniform Plumbing Code (attached), the minimum pipe size for the water branches is two-inch pipe. It is recommended that two-inch pipe be used for the water main servicing the Delta Drive Subdivision.

Transforming Challenges into Solutions.

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**TABLE 610.3
WATER SUPPLY FIXTURE UNITS (WSFU) AND MINIMUM FIXTURE BRANCH PIPE SIZES³**

APPLIANCES, APPURTENANCES OR FIXTURES ²	MINIMUM FIXTURE BRANCH PIPE SIZE ^{1,4} (Inches)	PRIVATE	PUBLIC	ASSEMBLY ⁵
Bathtub or Combination Bath/Shower (fill)	½	4.0	4.0	—
¾ inch Bathtub Fill Valve	¾	10.0	10.0	—
Bidet	½	1.0	—	—
Clothes Washer	½	4.0	4.0	—
Dental Unit, cuspidor	½	—	1.0	—
Dishwasher, domestic	½	1.5	1.5	—
Drinking Fountain or Water Cooler	½	0.5	0.5	0.75
Hose Bibb	½	2.5	2.5	—
Hose Bibb, each additional ⁸	½	1.0	1.0	—
Lavatory	½	1.0	1.0	1.0
Lawn Sprinkler, each head ⁵	—	1.0	1.0	—
Mobile Home, each (minimum)	—	12.0	—	—
Sinks	—	—	—	—
Bar	½	1.0	2.0	—
Clinic Faucet	½	—	3.0	—
Clinic Flushometer Valve with or without faucet	1	—	8.0	—
Kitchen, domestic with or without dishwasher	½	1.5	1.5	—
Laundry	½	1.5	1.5	—
Service or Mop Basin	½	1.5	3.0	—
Washup, each set of faucets	½	—	2.0	—
Shower, per head	½	2.0	2.0	—
Urinal, 1.0 GPF Flushometer Valve	¾	See Footnote ⁷		—
Urinal, greater than 1.0 GPF Flushometer Valve	¾	See Footnote ⁷		—
Urinal, flush tank	½	2.0	2.0	3.0
Wash Fountain, circular spray	¾	—	4.0	—
Water Closet, 1.6 GPF Gravity Tank	½	2.5	2.5	3.5
Water Closet, 1.6 GPF Flushometer Tank	½	2.5	2.5	3.5
Water Closet, 1.6 GPF Flushometer Valve	1	See Footnote ⁷		—
Water Closet, greater than 1.6 GPF Gravity Tank	½	3.0	5.5	7.0
Water Closet, greater than 1.6 GPF Flushometer Valve	1	See Footnote ⁷		—

For SI units: 1 inch = 25 mm

Notes:

¹ Size of the cold branch pipe, or both the hot and cold branch pipes.

² Appliances, appurtenances, or fixtures not referenced in this table shall be permitted to be sized by reference to fixtures having a similar flow rate and frequency of use.

³ The listed fixture unit values represent their load on the cold water building supply. The separate cold water and hot water fixture unit value for fixtures having both hot and cold water connections shall be permitted to be each taken as three-quarter of the listed total value of the fixture.

⁴ The listed minimum supply branch pipe sizes for individual fixtures are the nominal (I.D.) pipe size.

⁵ For fixtures or supply connections likely to impose continuous flow demands, determine the required flow in gallons per minute (gpm) (L/s), and add it separately to the demand in gpm (L/s) for the distribution system or portions thereof.

⁶ Assembly [Public Use (See Table 422.1)].

⁷ Where sizing flushometer systems, see Section 610.10.

⁸ Reduced fixture unit loading for additional hose bibbs is to be used where sizing total building demand and for pipe sizing where more than one hose bibb is supplied by a segment of water distribution pipe. The fixture branch to each hose bibb shall be sized on the basis of 2.5 fixture units.

TABLE 610.4
FIXTURE UNIT TABLE FOR DETERMINING WATER PIPE AND METER SIZES

METER AND STREET SERVICE (Inches)	BUILDING SUPPLY AND BRANCHES (Inches)	MAXIMUM ALLOWABLE LENGTH (feet)														
		40	60	80	100'	150	200	250	300	400	500	600	700	800	900	1000
PRESSURE RANGE - 30 to 45 psi ¹																
3/4	1/2 ²	6	5	4	3	2	1	1	1	0	0	0	0	0	0	0
3/4	3/4	16	16	14	12	9	6	5	5	4	4	3	2	2	2	1
3/4	1	29	25	23	21	17	15	13	12	10	8	6	6	6	6	6
1	1	36	31	27	25	20	17	15	13	12	10	8	6	6	6	6
3/4	1 1/4	36	33	31	28	24	23	21	19	17	16	13	12	12	11	11
1	1 1/4	54	47	42	38	32	28	25	23	19	17	14	12	12	11	11
1 1/2	1 1/4	78	68	57	48	38	32	28	25	21	18	15	12	12	11	11
1	1 1/2	85	84	79	65	56	48	43	38	32	28	26	22	21	20	20
1 1/2	1 1/2	150	124	105	91	70	57	49	45	36	31	26	23	21	20	20
2	1 1/2	151	129	129	110	80	64	53	46	38	32	27	23	21	20	20
1	2	85	85	85	85	85	85	82	80	66	61	57	52	49	46	43
1 1/2	2	220	205	190	176	155	138	127	120	104	85	70	61	57	54	51
2	2	370	327	292	265	217	185	164	147	124	96	70	61	57	54	51
2	2 1/2	445	418	390	370	330	300	280	265	240	220	198	175	158	143	133
PRESSURE RANGE - 46 to 60 psi ¹																
3/4	1/2 ²	7	7	6	5	4	3	2	2	1	1	1	0	0	0	0
3/4	3/4	20	20	19	17	14	11	9	8	6	5	4	4	3	3	3
3/4	1	39	39	36	33	28	23	21	19	17	14	12	10	9	8	8
1	1	39	39	39	36	30	25	23	20	18	15	12	10	9	8	8
3/4	1 1/4	39	39	39	39	39	39	34	32	27	25	22	19	19	17	16
1	1 1/4	78	78	76	67	52	44	39	36	30	27	24	20	19	17	16
1 1/2	1 1/4	78	78	78	78	66	52	44	39	33	29	24	20	19	17	16
1	1 1/2	85	85	85	85	85	85	80	67	55	49	41	37	34	32	30
1 1/2	1 1/2	151	151	151	151	128	105	90	78	62	52	42	38	35	32	30
2	1 1/2	151	151	151	151	150	117	98	84	67	55	42	38	35	32	30
1	2	85	85	85	85	85	85	85	85	85	85	85	85	85	83	80
1 1/2	2	370	370	340	318	272	240	220	198	170	150	135	123	110	102	94
2	2	370	370	370	370	368	318	280	250	205	165	142	123	110	102	94
2	2 1/2	654	640	610	580	535	500	470	440	400	365	335	315	285	267	250
PRESSURE RANGE - Over 60 psi ¹																
3/4	1/2 ²	7	7	7	6	5	4	3	3	2	1	1	1	1	1	0
3/4	3/4	20	20	20	20	17	13	11	10	8	7	6	6	5	4	4
3/4	1	39	39	39	39	35	30	27	24	21	17	14	13	12	12	11
1	1	39	39	39	39	38	32	29	26	22	18	14	13	12	12	11
3/4	1 1/4	39	39	39	39	39	39	39	39	34	28	26	25	23	22	21
1	1 1/4	78	78	78	78	74	62	53	47	39	31	26	25	23	22	21
1 1/2	1 1/4	78	78	78	78	78	74	65	54	43	34	26	25	23	22	21
1	1 1/2	85	85	85	85	85	85	85	85	81	64	51	48	46	43	40
1 1/2	1 1/2	151	151	151	151	151	151	130	113	88	73	51	51	46	43	40
2	1 1/2	151	151	151	151	151	151	142	122	98	82	64	51	46	43	40
1	2	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1 1/2	2	370	370	370	370	360	335	305	282	244	212	187	172	153	141	129
2	2	370	370	370	370	370	370	370	340	288	245	204	172	153	141	129
2	2 1/2	654	654	654	654	654	650	610	570	510	460	430	404	380	356	329

For SI units: 1 inch = 25 mm, 1 foot = 304.8 mm, 1 pound-force per square inch = 6.8947 kPa

Notes:

¹ Available static pressure after head loss.

² Building supply, not less than 3/4 of an inch (20 mm) nominal size.

From: Loni VanKirk <Loni.VanKirk@juneau.org>
Sent: Monday, September 28, 2020 8:18 AM
To: Kevin Puustinen <KevinPuustinen@pdceng.com>
Subject: RE: Hydrant Test Data - Delta Drive

CAUTION: This email originated from outside of the organization. Exercise caution when viewing attachments, clicking links, or responding to requests.

ACROSS FROM 4045 DELTA
DR.

MUELLER

WET

64

1110/48

8/13/2019

Kevin,

Here is the Data you requested.

Static PSI

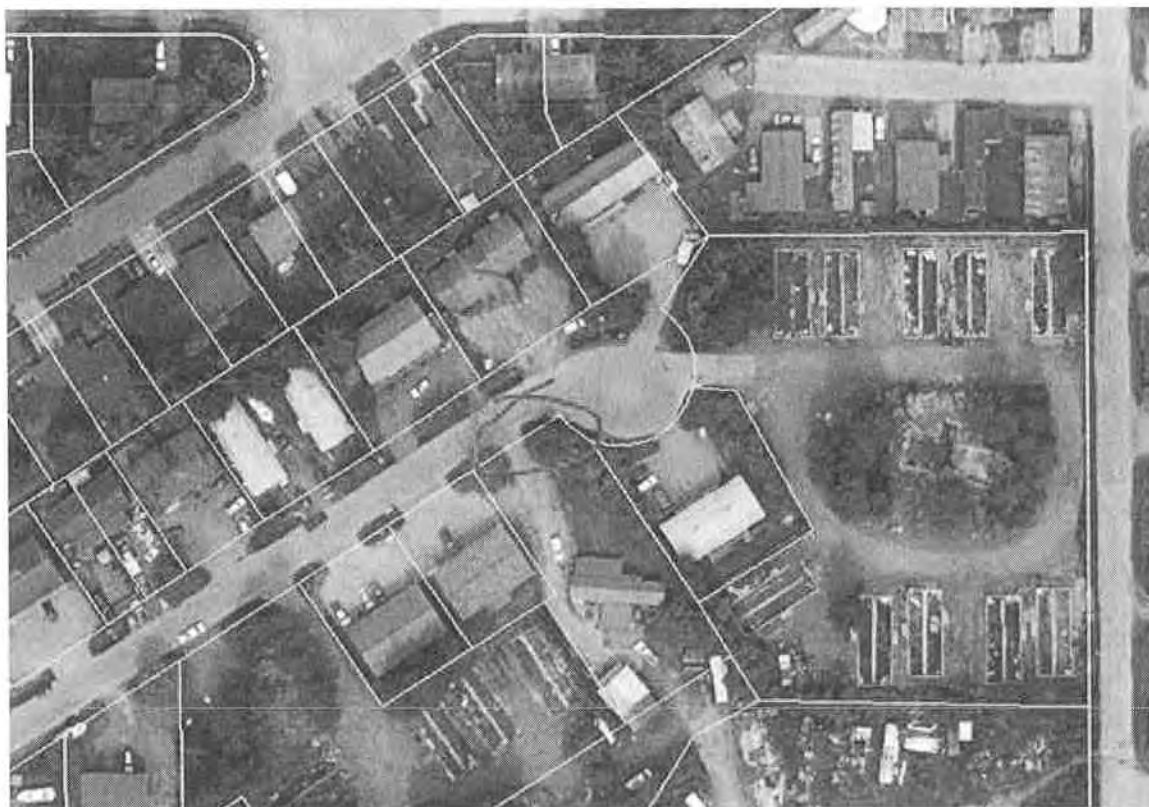
Flow/residual PSI

Loni Van Kirk
Distribution Senior Operator
CBJ Water Utility
907-723-4975

From: Kevin Puustinen <KevinPuustinen@pdceng.com>
Sent: Wednesday, September 23, 2020 10:06 AM
To: Loni VanKirk <Loni.VanKirk@juneau.org>
Subject: Hydrant Test Data - Delta Drive

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Hi Loni – Can you please send me your most recent test data for the hydrant in the cul-de-sac on Delta Drive?



Thanks,

Kevin Puustinen, PE

Civil Engineer

PDC ENGINEERS

A RESPEC COMPANY

9109 Mendenhall Mall Rd. Ste 4, Juneau, Alaska 99801 | 907.780.6060

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DRAINAGE REPORT FOR DELTA DRIVE SUBDIVISION JUNEAU, ALASKA

Prepared For:

Bicknell Development

2275 Brandy Lane, Suite 1
Juneau, AK 99801

Prepared By:

PDC Engineers

9109 Mendenhall Mall Road Suite 4
Juneau, AK 99801

Date: November 20, 2020
PDC Project No. 20098JN

1.0 PROJECT OVERVIEW

1.1 Project Description

Bicknell Inc., is proposing to redevelop an existing residential property. The project is located off the cul-de-sac at the end of Delta Drive. The property previously had 10 double wide mobile homes and a structure in the center of the property. The mobile homes and the center structure have been removed and the mobile home concrete foundations remain. The property has been divided into 15 lots. Lot 1 is the parent lot, lots 2 through 6 make up the northern lots. The center of the property has been divided into four lots to create lots 7 through 10. Lots 11 through 15 make up the southern lots.

1.2 Project Duration

The developer (Bicknell) will begin construction in the spring of 2021. The subdivision development is anticipated to occur over a period of approximately 3 months.

2.0 SOIL INFORMATION

Soil conditions present in the project area consists of a vegetated surface layer underlain by a soil matrix of sand, gravels and silt material. The ground water is located approximately 3 feet below the surface as confirmed by excavated test pits. The project area is fairly flat.

3.0 STORM WATER SYSTEM

Currently drainage leaves the site through a 12" CMP culvert located at the end of Delta Drive on the northeast side of the cul-de-sac.

The storm water system along Delta Drive has been proposed to be upgraded per CBJ Contract BE21-028 "Delta Drive Reconstruction." Work is scheduled for spring/summer 2021. For the purpose of this report, the proposed culverts for Delta Drive Reconstruction were used for the analysis of the Delta Drive Subdivision project site.

Drainage from the proposed Delta Drive Subdivision project site will be discharged into the Delta Drive storm water system at three locations, the 12" CPP ditch culvert (Pipe P-1) on the northeast side of the Delta Drive cul-de-sac, the 12" CPP culvert (Pipe P-3) at the area drain on the southeast side of the cul-de-sac, and a 12" CPP ditch culvert (Pipe P-4) located on the southwestern side of the cul-de-sac where it meets the 10' drainage easement.

A drainage swale along the northern perimeter of the proposed project area will be

graded at 1.0% from the east to the west to then discharge in to Pipe P-1 at the northeast side of the Delta Drive cul-de-sac. Drainage from the swale around lots 7 through 10 will drain into a Type III catch basin where it will then flow through a 12" CPP pipe (Pipe P-2) to a ditch where it will leave the site through Pipe P-1 at the northeast side of the Delta Drive cul-de-sac.

A drainage swale along the southern perimeter of the proposed project area will be graded at 1.0% from east to west to an underdrain that runs along a 10' drainage easement to Pipe P-4 at the southwestern side of the Delta Drive cul-de-sac.

All of the discharge from the site would then meet at a catch basin on Delta Drive where it will be discharge through an 18" CPP culvert (Pipe P-5) to continue through the storm system.

Storm drain structures and piping would follow CBJ Standard Specifications and Standard Drawings for the development.

3.0 SITE RUNOFF CALCULATION METHOD:

A total of four catchment areas were analyzed representing the existing and proposed drainage conveyance systems relevant to the project. The catchment areas include: The existing 12" CPP culvert (Pipe P-1) that is located at the northeastern side of the Delta Drive cul-de-sac, the proposed 12" CPP culvert (Pipe P-2) that is located on the project site near the entrance to the subdivision, the existing 12" CPP culvert (Pipe P-3) that is located on the southeastern edge of the cul-de-sac, and the existing 12" CPP culvert (Pipe P-4) at the southwestern end of the cul-de-sac.

The catchment areas were determined using the proposed design model. A delineation of the areas can be found in Appendix A.

To calculate the site runoff we have elected to use the Rational Method. The Rational Method is most appropriate for evaluating drainage basins less than 10 acres. Appendix D of the "2010 CBJ Manual of Storm Water Best Management Practices" was utilized as a guide. The calculations and supporting documentation can be found in Appendix B, C, D & E of this report.

3.1 Anticipated Site Runoff (Q):

Using the Rational Method, the amount of stormwater runoff during the 25-year storm event per catchment area was determined. See Table 1.1 for results, the calculations can be found in Appendix B.

Table 1.1 Anticipated Site Runoff (Q):	
Catchment Area	Q (cfs)
Pipe P-1	1.03
Pipe P-2	0.94
Pipe P-3	0.42
Pipe P-4	0.74

3.2 Conveyance/Discharge Structure Capacities:

The capacity of the existing and proposed drainage systems was calculated using the Manning's Equation to determine if proposed 25-year storm even flows could be conveyed. See Table 1.2 below for results, calculations can be found in Appendix B.

Table 1.2 Conveyance/Discharge Structure Capacities:	
Catchment Area	Q (cfs)
Pipe P-1	2.57
Pipe P-2	2.34
Pipe P-3	2.59
Pipe P-4	14.51
Pipe P-5	6.16

Summary

Table 1.3 below compares anticipated 25-year runoff in the proposed and existing conveyance systems to their available hydraulic capacity.

Table 1.3 Comparison			
Drainage Basin	Anticipated Runoff Q (cfs)	Capacity Check	Available Capacity Q (cfs)
Pipe P-1	1.12	<	2.57
Pipe P-2	0.94	<	2.34
Pipe P-3	0.42	<	2.59
Pipe P-4	0.74	<	14.51
Pipe P-5	3.13	<	6.16

In summary our analysis shows that there is enough capacity in the existing and proposed drainage structures to handle flows from the altered drainage patterns as a result of the proposed Delta Drive Subdivision improvements.



11/20/2020

J. Mark Pusich, P.E.
Principal Civil Engineer
PDC Engineers

Appendices:

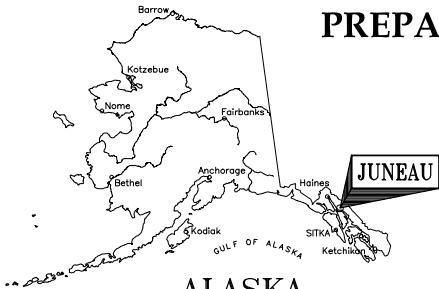
- A – Catchment Areas
- B – Rational Method
- C – Runoff Coefficient
- D – Time of Concentration
- E – Rainfall Intensity
- F – Existing & Proposed

Appendix A

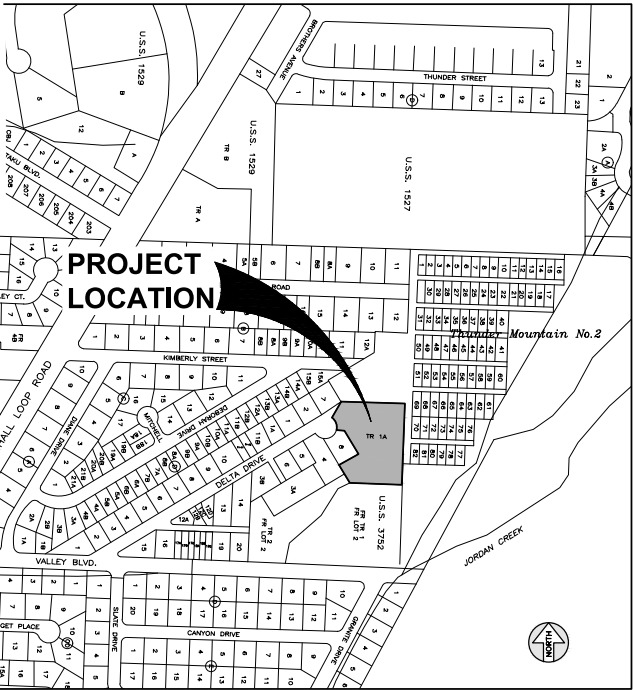
Catchment Areas

DELTA DRIVE SUBDIVISION CONSTRUCTION IMPROVEMENT PLAN DRAINAGE MAP

JUNEAU, ALASKA
PREPARED FOR BICKNELL, INC.



ALASKA



PROJECT LOCATION MAP



SHEET INDEX	
SHEET No.	DESCRIPTION
1	COVER SHEET
2	P-1: EXISTING 12" CPP CULVERT
3	P-2: PROPOSED 12" CPP CULVERT
4	P-3: EXISTING 12" CPP CULVERT
5	P-4: EXISTING 12" CPP CULVERT

DESIGN: XXX
DRAWN: XXX
CHECK: JUMP
APPROVED: JUMP
FILE:

No.	DATE	REVISION	BY	APRVD.

DELTA DRIVE
SUBDIVISION

JUNEAU, AK

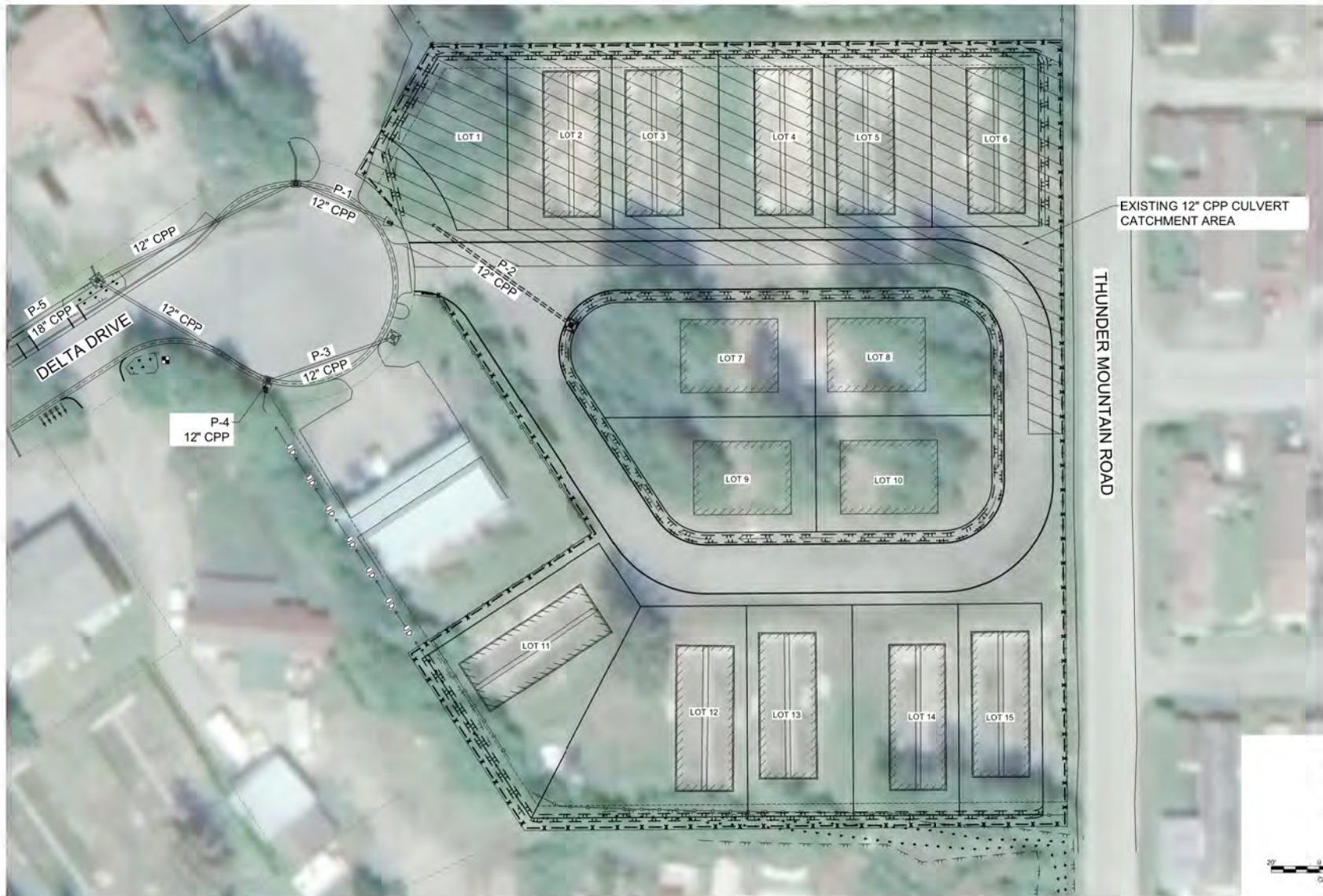


COVER SHEET

DATE: Nov 20, 2020
PDC No. 20098JUN

SHEET

1



DESIGN: XXX			
DRAWN: XXX			
CHECK: JWP			
APPROVED: JWP			
FILE			

NO.	DATE	REVISION	BY	APPROV.

**DELTA DRIVE
SUBDIVISION**

JUNEAU, AK

**PDC
ENGINEERS**

PLAN • DESIGN • CONSTRUCT

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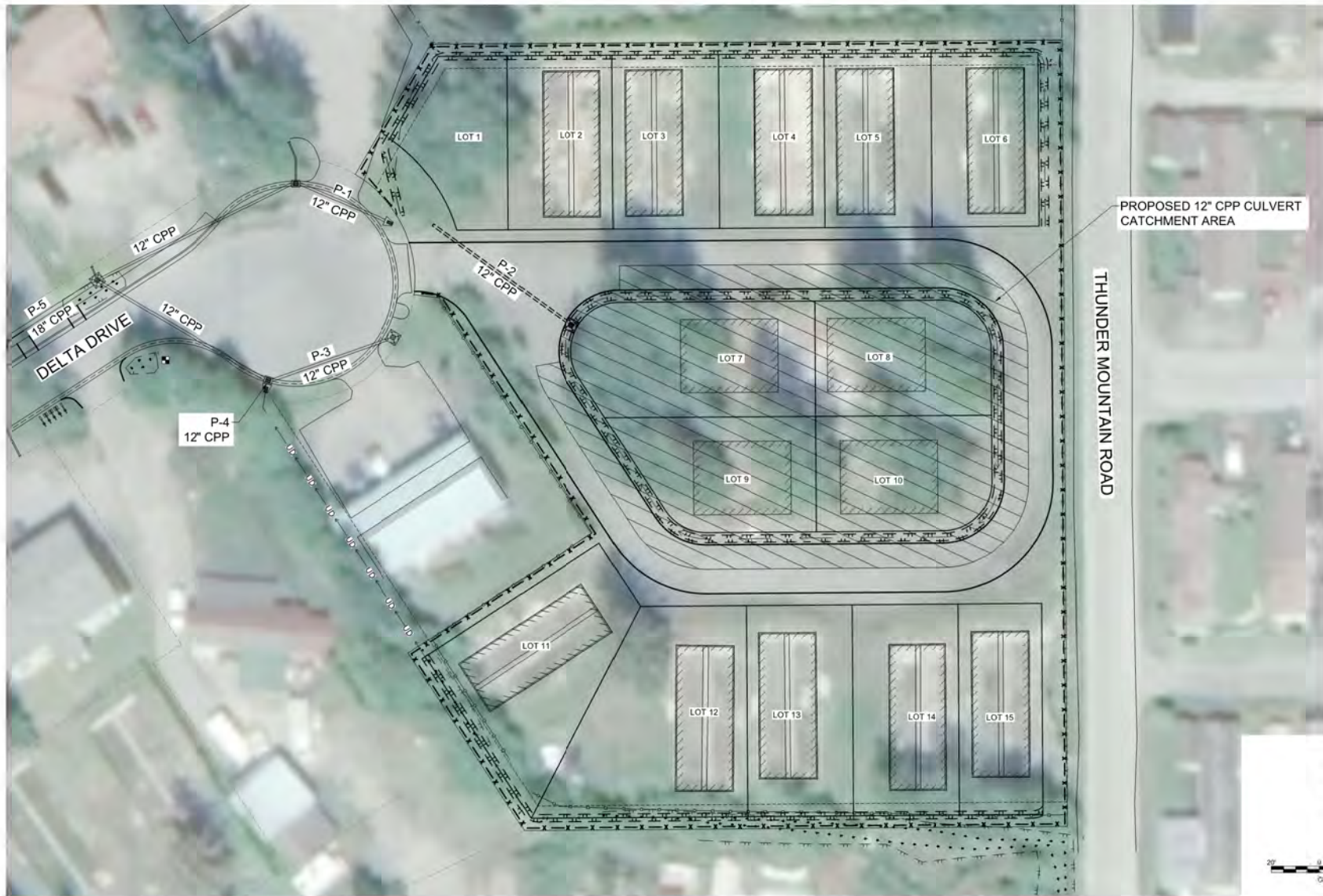
**P-1: EXISTING 12" CPP
CULVERT CATCHMENT AREA**

DATE: March 25, 2021

PDC No: 2009JUN

SHEET

2



DESIGN: XXX			
DRAWN: XXX			
CHECK: JWP			
APPROVED: JWP			
FILE			
NO.	DATE	REVISION	BY
			APPROV.

**DELTA DRIVE
SUBDIVISION**

JUNEAU, AK

PDC
ENGINEERS

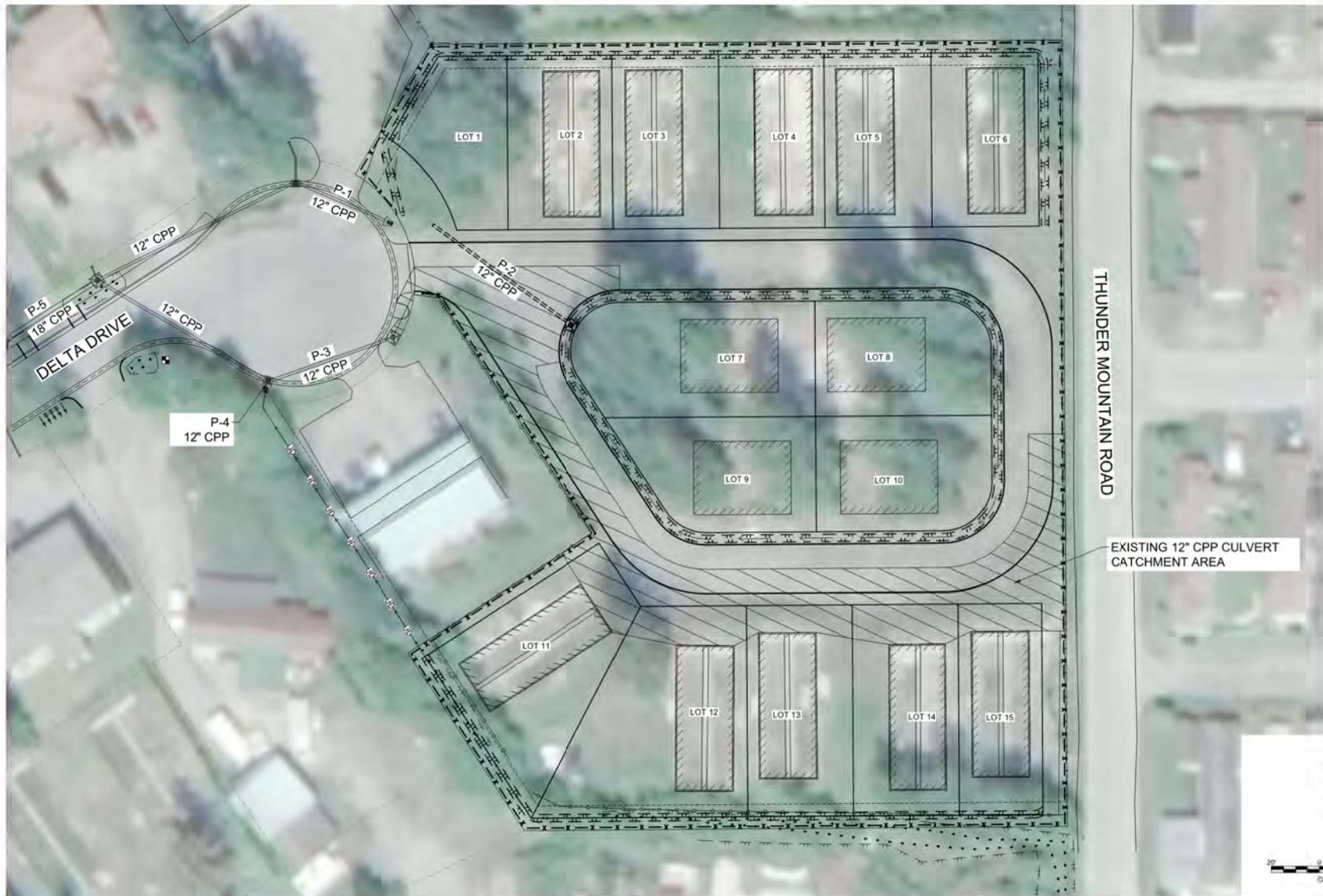
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9109 Mendenhall Mall Rd. Ste. 4, Juneau, AK 99801
907.780.6060 | A E C C S O S

**P-2: PROPOSED 12" CPP
CULVERT CATCHMENT AREA**

DATE: March 25, 2021
PDC No: 2009SUN

SHEET
3



DESIGN: XXX			
DRAWN: XXX			
CHECK: JWP			
APPROVED: JWP			
FILE			

NO.	DATE	REVISION	BY	APPROV.

**DELTA DRIVE
SUBDIVISION**

JUNEAU, AK

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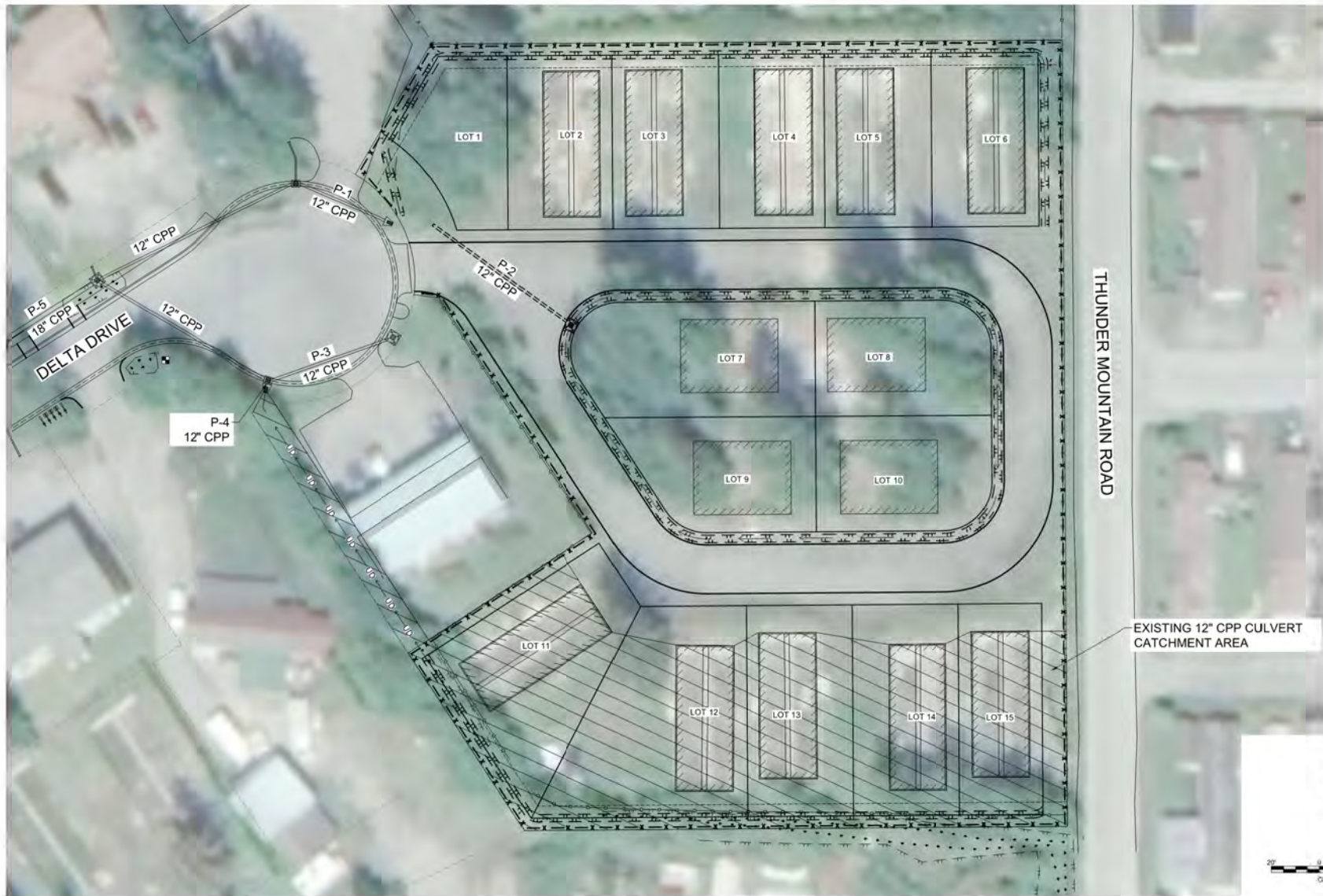
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9109 Mendenhall Mall Rd. Ste. 4, Juneau, AK 99801
907.780.6060 | AEC605

**P-3: EXISTING 12" CPP
CULVERT CATCHMENT AREA**

DATE: March 25, 2021
PDC No: 2009JUN

SHEET
4



DESIGN: XXX			
DRAWN: XXX			
CHECK: JWP			
APPROVED: JWP			
FILE	NO. DATE	REVISION	BY APPROV.

DELTA DRIVE
SUBDIVISION

JUNEAU, AK



P-4: EXISTING 12" CPP
CULVERT CATCHMENT AREA

DATE: March 25, 2021
PDC No: 2009JUN
SHEET
5

Appendix B

Rational Method

Rational Method Site Runoff Pipe P-1: Existing 12" CPP		
Project:	Delta Drive Subdivision	
Owner:	Bicknell Inc.	
Date:	11/19/2020	
Prepared By:	M. Minsch	
Checked By:	M. Pusich	

$$Q = CIA$$

Q = peak flow in cubic feet per second (cfs)
C = runoff coefficient
I = rainfall intensity (inches per hour)
A = catchment area (acres)

$$C_c = (C_1A_1 + C_2A_2)/A_t$$

C_c = composite runoff coefficient
 $C_{1,2}$ = runoff coefficient for each area land cover type
 A_t = total area (acres)
 $A_{1,2}$ = areas of land cover (acres)
 $C_c = 0.84$, see Appendix C for calculation

$$T_c = T_1 + T_2 + \dots + T_n$$

T_c = time of concentration (min)
 $T_{1,2}$ = travel time across separate flow path segments (min)
 $T_c = 13.10$ min, see Appendix D for calculation

$$T_t = L/60V$$

T_t = travel time (min)
L = the distance of flow across a given segment (feet)
 $V = k_r\sqrt{S_0}$ = average velocity $\left(\frac{\text{feet}}{\text{sec}}\right)$ across land cover
 k_r = time of concentration velocity factor (CBJ Manual of Storm Water BMP 2010, Table D - 5, PG. D - 10)
 S_0 = slope of flow path $\left(\frac{\text{feet}}{\text{feet}}\right)$

Per CBJ Manual of Storm Water BMP 2010, Table 5-1, page 5-1, design event frequencies are specified. For driveway culvert, a 25-year storm event is the required design return period. We will base our analysis on a 25-year design return period for all drainage structures and catchment areas. Per CBJ Manual of Storm Water BMP 2010, page D-9, basins with a time and concentration 10 minutes or less shall use the 10 minute intensity. Basins with a time of concentration greater than 10 minutes and less than 30 minutes shall interpolate between the 10 and 30 minute values. Rainfall intensity for the site was sourced from the NOAA Atlas 14, Point Precipitation Frequency Estimates, see Appendix E, and is summarized as follows:

	Design Return Period
Tc 13.10 (min)	25-year
Interpolated Intensity (in/hr)=	2.03

Pipe P-1 is an existing 12" CPP culvert on the northeast side of the Delta Drive cul-de-sac that drains into the Delta Drive storm system at the location where the new subdivision access will tie into the shoulder of the cul-de-sac. The area that is proposed to contribute runoff to this culvert was delineated in AutoCAD.

$$A = 26270 \text{ sqft} / 43,560 = 0.60 \text{ acres}$$

	C_c	I	A		
Q (cfs)=	0.84	2.03	0.60	=	1.03

Rational Method Site Runoff Pipe P-2: Proposed 12" CPP		
Project:	Delta Drive Subdivision	 PLAN • DESIGN • CONSTRUCT A RESPECT COMPANY 9109 Mendonhall Mall Rd. Ste. 4, Juneau, AK 99801 907.780.6060 A E C C 6 0 5
Owner:	Bicknell Inc.	
Date:	11/19/2020	
Prepared By:	M. Minsch	
Checked By:	M. Pusich	

$$Q = CIA$$

Q = peak flow in cubic feet per second (cfs)
C = runoff coefficient
I = rainfall intensity (inches per hour)
A = catchment area (acres)

$$C_c = (C_1A_1 + C_2A_2)/A_t$$

C_c = composite runoff coefficient
 $C_{1,2}$ = runoff coefficient for each area land cover type
 A_t = total area (acres)
 $A_{1,2}$ = areas of land cover (acres)
 $C_c = 0.84$, see Appendix C for calculation

$$T_c = T_1 + T_2 + \dots + T_n$$

T_c = time of concentration (min)
 $T_{1,2}$ = travel time across separate flow path segments (min)
 $T_c = 11.27$ min, see Appendix D for calculation

$$T_t = L/60V$$

T_t = travel time (min)
 L = the distance of flow across a given segment (feet)
 $V = k_r\sqrt{S_0}$ = average velocity $\left(\frac{\text{feet}}{\text{sec}}\right)$ across land cover
 k_r = time of concentration velocity factor (CBJ Manual of Storm Water BMP 2010, Table D - 5, PG. D - 10)
 S_0 = slope of flow path $\left(\frac{\text{feet}}{\text{feet}}\right)$

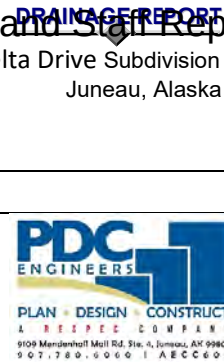
Per CBJ Manual of Storm Water BMP 2010, Table 5-1, page 5-1, design event frequencies are specified. For driveway culvert, a 25-year storm event is the required design return period. We will base our analysis on a 25-year design return period for all drainage structures and catchment areas. Per CBJ Manual of Storm Water BMP 2010, page D-9, basins with a time and concentration 10 minutes or less shall use the 10 minute intensity. Basins with a time of concentration greater than 10 minutes and less than 30 minutes shall interpolate between the 10 and 30 minute values. Rainfall intensity for the site was sourced from the NOAA Atlas 14, Point Precipitation Frequency Estimates, see Appendix E, and is summarized as follows:

	Design Return Period
Tc 11.27 (min)	25-year
Interpolated Intensity (in/hr)=	2.22

P-2 is a proposed 12" CPP pipe is being installed to maintain the runoff from part of the subdivision access road and from proposed lots 7 through 10. Runoff will be carried down to a ditch where it will then flow into pipe P-1 and discharge into the Delta Drive storm system. The area that is proposed to contribute runoff to this culvert was delineated in AutoCAD.

$$A = 21,736 \text{ sqft} / 43,560 = 0.50 \text{ acres}$$

	C_c	I	A		
Q (cfs)=	0.84	2.22	0.50	=	0.94



Rational Method Site Runoff Pipe P-3: Existing 12" CPP		
Project:	Delta Drive Subdivision	
Owner:	Bicknell Inc.	
Date:	11/19/2020	
Prepared By:	M. Minsch	
Checked By:	M. Pusich	

$$Q = CIA$$

Q = peak flow in cubic feet per second (cfs)

C = runoff coefficient

I = rainfall intensity (inches per hour)

A = catchment area (acres)

$$C_c = (C_1A_1 + C_2A_2)/A_t$$

C_c = composite runoff coefficient

$C_{1,2}$ = runoff coefficient for each area land cover type

A_t = total area (acres)

$A_{1,2}$ = areas of land cover (acres)

$C_c = 0.85$, see Appendix C for calculation

$$T_c = T_1 + T_2 + \dots + T_n$$

T_c = time of concentration (min)

$T_{1,2}$ = travel time across separate flow path segments (min)

$T_c = 12.93$ min, see Appendix D for calculation

$$T_t = L/60V$$

T_t = travel time (min)

L = the distance of flow across a given segment (feet)

$V = k_r\sqrt{S_0}$ = average velocity ($\frac{\text{feet}}{\text{sec}}$) across land cover

k_r = time of concentration velocity factor (CBJ Manual of Storm Water BMP 2010, Table D - 5, PG. D - 10)

S_0 = slope of flow path ($\frac{\text{feet}}{\text{feet}}$)

Per CBJ Manual of Storm Water BMP 2010, Table 5-1, page 5-1, design event frequencies are specified. For driveway culvert, a 25-year storm event is the required design return period. We will base our analysis on a 25-year design return period for all drainage structures and catchment areas. Per CBJ Manual of Storm Water BMP 2010, page D-9, basins with a time and concentration 10 minutes or less shall use the 10 minute intensity. Basins with a time of concentration greater than 10 minutes and less than 30 minutes shall interpolate between the 10 and 30 minute values. Rainfall intensity for the site was sourced from the NOAA Atlas 14, Point Precipitation Frequency Estimates, see Appendix E, and is summarized as follows:

	Design Return Period
Tc 12.93 (min)	25-year
Interpolated Intensity (in/hr)=	2.05

Pipe P-3 is an existing 12" CPP culvert on the southeast side of the Delta Drive cul-de-sac that drains into the Delta Drive ditch system that is near the location where the new subdivision access will tie into the shoulder of the cul-de-sac. Runoff will flow into the area drain and catch basin before flowing through the culvert. The area that is proposed to contribute runoff to this culvert was delineated in AutoCAD.

$$A = 10,626 \text{ sqft} / 43,560 = 0.24 \text{ acres}$$

	C_c	I	A		
Q (cfs)=	0.85	2.05	0.24	=	0.42

Rational Method Site Runoff Pipe P-4: Existing 12" CPP		
Project:	Delta Drive Subdivision	 PDC ENGINEERS PLAN • DESIGN • CONSTRUCT A RESPECT COMPANY 9109 Mendonhall Mall Rd, Ste. 4, Juneau, AK 99801 907.780.6060 AEC605
Owner:	Bicknell Inc.	
Date:	11/19/2020	
Prepared By:	M. Minsch	
Checked By:	M. Pusich	

$$Q = CIA$$

Q = peak flow in cubic feet per second (cfs)

C = runoff coefficient

I = rainfall intensity (inches per hour)

A = catchment area (acres)

$$C_c = (C_1A_1 + C_2A_2)/A_t$$

C_c = composite runoff coefficient

$C_{1,2}$ = runoff coefficient for each area land cover type

A_t = total area (acres)

$A_{1,2}$ = areas of land cover (acres)

$C_c = 0.83$, see Appendix C for calculation

$$T_c = T_1 + T_2 + \dots + T_n$$

T_c = time of concentration (min)

$T_{1,2}$ = travel time across separate flow path segments (min)

$T_c = 16.60$ min, see Appendix D for calculation

$$T_t = L/60V$$

T_t = travel time (min)

L = the distance of flow across a given segment (feet)

$V = k_r\sqrt{S_0}$ = average velocity $\left(\frac{\text{feet}}{\text{sec}}\right)$ across land cover

k_r = time of concentration velocity factor (CBJ Manual of Storm Water BMP 2010, Table D - 5, PG. D - 10)

S_0 = slope of flow path $\left(\frac{\text{feet}}{\text{feet}}\right)$

Per CBJ Manual of Storm Water BMP 2010, Table 5-1, page 5-1, design event frequencies are specified. For driveway culvert, a 25-year storm event is the required design return period. We will base our analysis on a 25-year design return period for all drainage structures and catchment areas. Per CBJ Manual of Storm Water BMP 2010, page D-9, basins with a time and concentration 10 minutes or less shall use the 10 minute intensity. Basins with a time of concentration greater than 10 minutes and less than 30 minutes shall interpolate between the 10 and 30 minute values. Rainfall intensity for the site was sourced from the NOAA Atlas 14, Point Precipitation Frequency Estimates, see Appendix E, and is summarized as follows:

	Design Return Period
Tc 16.60 (min)	25-year
Interpolated Intensity (in/hr)=	1.77

There is an existing 12" CMP culvert that drains into the existing Delta Drive drainage system at the location where the new subdivision access will tie into the end of the Delta Drive cul-de-sac. The 12" CMP culvert is proposed to be replaced with a 12" CPP culvert along with the rest of the Delta Drive storm system under CBJ Contract BE21-028 "Delta Drive Reconstruction." Work is scheduled for spring/summer 2021. The 12" CPP culvert is being installed to maintain the existing flow around the Delta Drive cul-de-sac.

$$A = 21,786 \text{ sqft} / 43,560 = 0.50 \text{ acres}$$

	C_c	I	A		
Q (cfs)=	0.83	1.77	0.50	=	0.74

Appendix C

Runoff Coefficient

DRAINAGE REPORT

Delta Drive Subdivision

Juneau, Alaska

Runoff Coefficient Calculations

Project:	Delta Drive Subdivision	 PLAN • DESIGN • CONSTRUCT A R E E C C O S COMPANY 9109 Mendota Hill Mall Rd. Ste. 4, Jumeau, WI 54981 907.780.6060 ARECCOS
Owner:	Bicknell Inc.	
Date:	11/19/2020	
Prepared By:	M. Minsch	
Checked By:	M. Pusich	

Pipe P-1: Existing 12" CPP Culvert

Total Basin Area (SQFT)=	26270
Total Basin Area (ACRE)=	0.60

Surface Type	Location	Area (SQFT)	Total (SQFT)	Total (Acre)	% Overall Basin	Surface Runoff Coefficient	Runoff Coefficient for Each Area
Pavement	Road	3143					
			3143	0.07215335	11.96%	0.9	0.1
Building Roofs	Mobile homes	7084					
			7084	0.16262626	26.97%	0.9	0.1
Gravel Area	Everywhere else	16043					
			16043	0.3682966	61.07%	0.8	0.3
		Total=	26270	0.60	100.00%		0.5
					Composite Runoff Coefficient		0.84

Pipe P-2: Proposed 12" CPP

Total Basin Area (SQFT)=	21736
Total Basin Area (ACRE)=	0.5

Surface Type	Location	Area (SQFT)	Total (SQFT)	Total (Acre)	% Overall Basin	Surface Runoff Coefficient	Runoff Coefficient for Each Area
Pavement	Road	4842					
			4842	0.11115702	22.28%	0.9	0.1
Building Roofs	Mobile homes	4800					
			4800	0.11019284	22.08%	0.9	0.1
Gravel Area	Everywhere else	12094					
			12094	0.27764004	55.64%	0.8	0.2
		Total=	21736	0.50	100.00%		0.4
					Composite Runoff Coefficient		0.84

DRAINAGE REPORT



PDC
ENGINEERS
PLAN • DESIGN • CONSTRUCT
A RESPECT COMPANY
9109 Mendenhall Mall Rd. Ste. 4, Jumeau, AK 998
907.780.6060 | AECC60

Runoff Coefficient Calculations	
Project:	Delta Drive Subdivision
Owner:	Bicknell Inc.
Date:	11/19/2020
Prepared By:	M. Minsch
Checked By:	M. Pusich

PDC
ENGINEERS
 PLAN • DESIGN • CONSTRUCT
 A RESPEC COMPANY
 9109 Mendota Hall Mall Rd. Ste. 4, Burnsville, MN 55337
 952.780.0060 | AEECC05

Pipe P-3: Existing 12" CPP	
Total Basin Area (SQFT)=	10626
Total Basin Area (ACRE)=	0.24

Surface Type	Location	Area (SQFT)	Total (SQFT)	Total (Acre)	% Overall Basin	Surface Runoff Coefficient	Runoff Coefficient for Each Area
Pavement	Road	5115					
			5115	0.11742424	48.14%	0.9	0.1
Gravel Area	Everywhere else	5511					
			5511	0.12651951	51.87%	0.8	0.1
		Total=	10626	0.24	100.00%		0.2
					Composite Runoff Coefficient		0.84

Pipe P-4: Existing 12" CPP Culvert	
Total Basin Area (SQFT)=	21786
Total Basin Area (ACRE)=	0.50

Surface Type	Location	Area (SQFT)	Total (SQFT)	Total (Acre)	% Overall Basin	Runoff Coefficient	Runoff Coefficient for Each Area
Pavement	Road	7037					
			7037	0.16154729	32.30%	0.9	0.1
Gravel Area	Everywhere else	14750					
			14750	0.33861341	67.70%	0.8	0.3
		Total=	21786	0.50	100.00%		0.4
					Composite Runoff Coefficient		0.83

Appendix D

Time of Concentration

**Time of Concentration Calculations**

Project:	Delta Drive Subdivision
Owner:	Bicknell Inc.
Date:	11/19/2020
Prepared By:	M. Minsch
Checked By:	M. Pusich

Pipe P-1: Existing 12" CPP Culvert	
Time of Concentration	
Distance of Flow (Ft):	393
Time of concentration velocity factor:	20
Slope of Flow Path (Ft/Ft):	0.01
Velocity (Ft/Sec):	2
Time of Concentration (Min):	13.10

Pipe P-2: Proposed 12" CPP Culvert	
Time of Concentration	
Distance of Flow (Ft):	338
Time of concentration velocity factor:	20
Slope of Flow Path (Ft/Ft):	0.01
Velocity (Ft/Sec):	2
Time of Concentration (Min):	11.27

Pipe P-3: Existing 12" CPP Culvert	
Time of Concentration	
Distance of Flow (Ft):	388
Time of concentration velocity factor:	20
Slope of Flow Path (Ft/Ft):	0.01
Velocity (Ft/Sec):	2
Time of Concentration (Min):	12.93

Pipe P-4: Existing 12" CPP Culvert	
Time of Concentration	
Distance of Flow (Ft):	498
Time of concentration velocity factor:	20
Slope of Flow Path (Ft/Ft):	0.01
Velocity (Ft/Sec):	2
Time of Concentration (Min):	16.60

Appendix E

Rainfall Intensity

Attachment C - SMF2021 0002 Final Plat Notice of Decision and **DRAINAGE REPORT**
Delta Drive Subdivision
Juneau, Alaska



NOAA Atlas 14, Volume 7, Version 2
Location name: Juneau, Alaska, USA*
Latitude: 58.3922°, Longitude: -134.5604°
Elevation: 50.42 ft**
* source: ESRI Maps
** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Penca, Douglas Kane, Sarah Dietz, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishari Roy, Svetlana Stuefer, Amy Tidwell, Carl Trypanuk, Dale Uhrh, Michael Yokta, Erica Bettis, Geoffrey Bonnin, Sarah Heim, Lillian Hiner, Elizabeth Lilly, Jayashree Narayanan, Fenglin Yan, Tan Zhao

NOAA, National Weather Service, Silver Spring, Maryland
and
University of Alaska Fairbanks, Water and Environmental Research Center

[PF tabular](#) | [PF graphical](#) | [Maps & aerials](#)

PF tabular

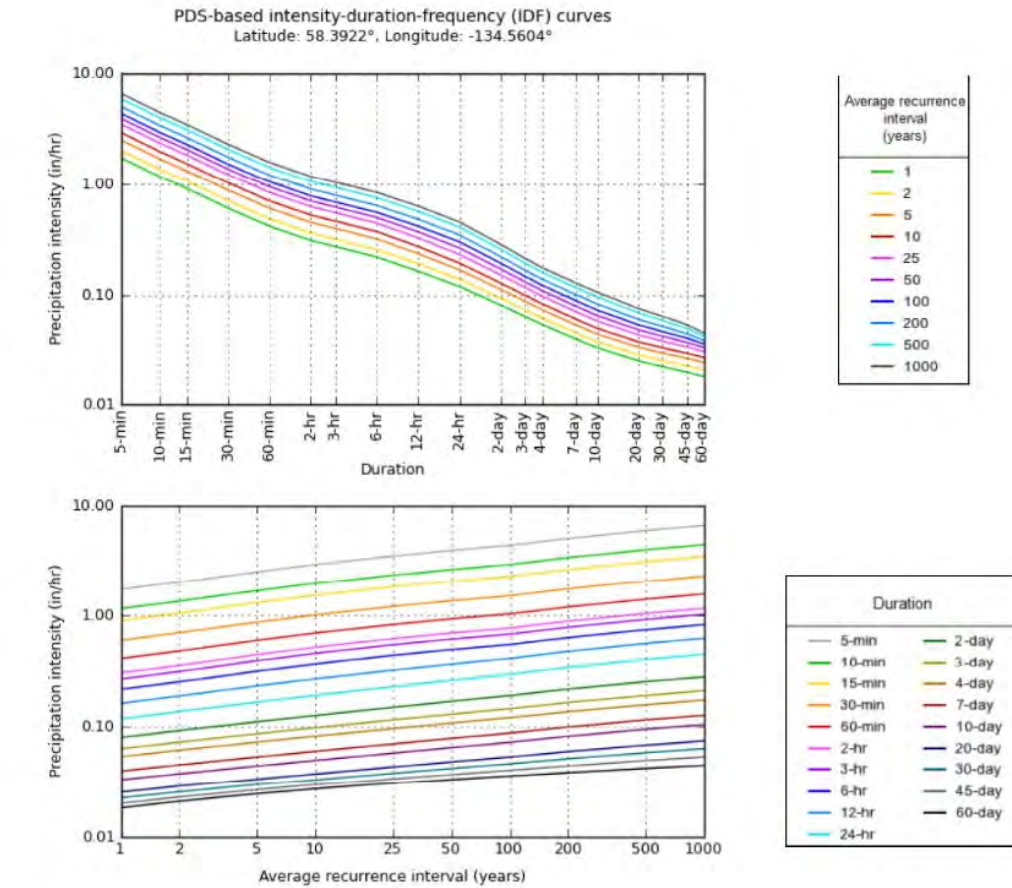
PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour) ¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	1.74 (0.936-2.21)	2.03 (1.61-2.62)	2.52 (1.94-3.34)	2.94 (2.22-3.97)	3.50 (2.58-4.86)	3.95 (2.84-5.59)	4.38 (3.10-6.34)	5.05 (3.49-7.45)	5.95 (4.01-9.01)	6.62 (4.38-10.2)
10-min	1.16 (0.936-1.48)	1.36 (1.08-1.76)	1.69 (1.31-2.24)	1.97 (1.49-2.68)	2.35 (1.73-3.26)	2.65 (1.91-3.75)	2.94 (2.08-4.25)	3.40 (2.35-5.01)	4.00 (2.69-6.05)	4.45 (2.94-6.86)
15-min	0.908 (0.728-1.16)	1.06 (0.840-1.37)	1.32 (1.02-1.75)	1.54 (1.16-2.08)	1.84 (1.35-2.55)	2.06 (1.49-2.92)	2.30 (1.62-3.32)	2.65 (1.83-3.90)	3.12 (2.10-4.72)	3.47 (2.30-5.35)
30-min	0.602 (0.484-0.766)	0.704 (0.556-0.908)	0.876 (0.676-1.16)	1.02 (0.770-1.38)	1.22 (0.896-1.89)	1.37 (0.986-1.94)	1.52 (1.07-2.20)	1.76 (1.22-2.59)	2.07 (1.39-3.13)	2.30 (1.52-3.55)
60-min	0.413 (0.332-0.525)	0.482 (0.381-0.622)	0.600 (0.463-0.794)	0.699 (0.528-0.944)	0.834 (0.613-1.16)	0.939 (0.676-1.33)	1.04 (0.736-1.51)	1.20 (0.833-1.78)	1.42 (0.955-2.14)	1.58 (1.04-2.43)
2-hr	0.306 (0.246-0.390)	0.358 (0.283-0.462)	0.447 (0.345-0.592)	0.520 (0.394-0.703)	0.622 (0.457-0.862)	0.698 (0.503-0.990)	0.775 (0.547-1.12)	0.894 (0.619-1.32)	1.05 (0.710-1.59)	1.17 (0.776-1.81)
3-hr	0.270 (0.217-0.343)	0.315 (0.249-0.407)	0.394 (0.304-0.521)	0.459 (0.347-0.620)	0.548 (0.403-0.761)	0.616 (0.444-0.872)	0.683 (0.482-0.987)	0.788 (0.545-1.16)	0.927 (0.625-1.40)	1.03 (0.683-1.59)
6-hr	0.218 (0.175-0.277)	0.255 (0.201-0.328)	0.317 (0.245-0.420)	0.369 (0.279-0.498)	0.441 (0.324-0.612)	0.496 (0.357-0.703)	0.551 (0.389-0.796)	0.636 (0.440-0.938)	0.748 (0.505-1.13)	0.834 (0.552-1.29)
12-hr	0.163 (0.131-0.207)	0.190 (0.150-0.245)	0.234 (0.181-0.310)	0.271 (0.205-0.366)	0.324 (0.238-0.450)	0.368 (0.265-0.521)	0.414 (0.292-0.598)	0.478 (0.331-0.705)	0.563 (0.380-0.852)	0.627 (0.415-0.968)
24-hr	0.118 (0.107-0.131)	0.138 (0.124-0.155)	0.167 (0.147-0.192)	0.192 (0.166-0.225)	0.230 (0.194-0.275)	0.262 (0.218-0.319)	0.298 (0.243-0.369)	0.344 (0.276-0.434)	0.405 (0.317-0.522)	0.451 (0.348-0.591)
2-day	0.080 (0.073-0.089)	0.093 (0.083-0.104)	0.111 (0.098-0.128)	0.127 (0.110-0.148)	0.150 (0.127-0.180)	0.170 (0.141-0.207)	0.192 (0.156-0.237)	0.219 (0.176-0.276)	0.255 (0.200-0.329)	0.283 (0.218-0.370)
3-day	0.063 (0.058-0.070)	0.073 (0.065-0.082)	0.087 (0.076-0.100)	0.098 (0.086-0.115)	0.116 (0.098-0.138)	0.130 (0.108-0.159)	0.146 (0.119-0.181)	0.166 (0.133-0.209)	0.192 (0.151-0.248)	0.212 (0.163-0.278)
4-day	0.054 (0.049-0.060)	0.062 (0.055-0.069)	0.073 (0.064-0.084)	0.082 (0.071-0.096)	0.096 (0.081-0.115)	0.108 (0.090-0.132)	0.121 (0.099-0.150)	0.137 (0.110-0.173)	0.158 (0.124-0.204)	0.174 (0.134-0.228)
7-day	0.040 (0.036-0.044)	0.045 (0.041-0.051)	0.053 (0.047-0.061)	0.060 (0.052-0.070)	0.070 (0.059-0.084)	0.079 (0.065-0.096)	0.088 (0.072-0.109)	0.100 (0.080-0.126)	0.116 (0.091-0.149)	0.127 (0.098-0.167)
10-day	0.033 (0.030-0.037)	0.038 (0.034-0.042)	0.044 (0.039-0.051)	0.050 (0.043-0.058)	0.058 (0.049-0.069)	0.065 (0.054-0.079)	0.073 (0.059-0.090)	0.082 (0.066-0.104)	0.095 (0.075-0.123)	0.105 (0.081-0.138)
20-day	0.025 (0.023-0.028)	0.029 (0.026-0.032)	0.034 (0.030-0.039)	0.038 (0.032-0.044)	0.043 (0.037-0.052)	0.048 (0.040-0.059)	0.053 (0.044-0.066)	0.060 (0.048-0.076)	0.068 (0.054-0.088)	0.075 (0.058-0.098)
30-day	0.022 (0.020-0.025)	0.025 (0.023-0.029)	0.030 (0.026-0.034)	0.033 (0.029-0.039)	0.038 (0.032-0.046)	0.042 (0.035-0.051)	0.046 (0.038-0.058)	0.052 (0.041-0.065)	0.058 (0.046-0.075)	0.064 (0.049-0.083)
45-day	0.020 (0.018-0.022)	0.023 (0.021-0.026)	0.027 (0.023-0.031)	0.030 (0.026-0.035)	0.034 (0.029-0.040)	0.037 (0.031-0.045)	0.041 (0.033-0.050)	0.044 (0.036-0.056)	0.050 (0.039-0.064)	0.054 (0.041-0.070)
60-day	0.018 (0.017-0.020)	0.021 (0.019-0.024)	0.024 (0.022-0.028)	0.027 (0.023-0.032)	0.031 (0.026-0.037)	0.033 (0.028-0.041)	0.036 (0.029-0.045)	0.039 (0.031-0.049)	0.042 (0.033-0.054)	0.045 (0.035-0.058)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

[Back to Top](#)

https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_printpage.html?lat=58.3922&lon=-134.5604&data=intensity&units=english&series=pds

PF graphical



NOAA Atlas 14, Volume 7, Version 2

Created (GMT): Thu Nov 19 20:30:02 2020

https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_printpage.html?lat=58.3922&lon=-134.5604&data=intensity&units=english&series=pds

Maps & aerals

Small scale terrain



Large scale terrain



Large scale map



Large scale aerial



Appendix F

Existing & Proposed Capacity Calcs

Discharge Capacity Calculations		
Project:	Delta Drive Subdivision	
Owner:	Bicknell Inc.	
Date:	11/19/2020	
Prepared By:	M. Minsch	
Checked By:	M. Pusich	

The following equation was used to calculate the capacity of pipes P-1, P-2, P-3 and P-4 that drain into the existing Delta Drive ditch system. Capacity was also calculated for the 18" CPP culvert that will transport all of the water discharged from the proposed site into the Delta Drive storm system. The equation is from "Urban Drainage Design Manual: Hydraulic Engineering Circular No. 22, Third Edition."

$$Q = (K/n) \times A \times R^{0.67} \times S^{0.5}$$

Q= Discharge in cubic feet per second (cfs)

K = Coefficient for English units (1.486)

n = Manning's coefficient of roughness, obtained from Table 5-3, Page 5-5, of the CBJ Stormwater Manual

A = Cross sectional area in square feet

R = Hydraulic radius

S= Slope

Pipe P-1: Existing 12" CPP Culvert

Inlet Invert=95.19, Outlet Invert=94.98, Length=43', n=0.014. The Manning's n value of 0.014 was determined by the pipe type (CPP-smooth interior) Table 5-3.

	k	n	A	R	S		
Q (cfs)	1.486	0.014	0.79	.25	0.006	=	2.57

Pipe P-2: Proposed 12" CPP Culvert

Inlet Invert=96.55, Outlet Invert=96.20, Length=70', n=0.014. The Manning's n value of 0.014 was determined by the pipe type (CPP-smooth interior) Table 5-3.

	k	n	A	R	S		
Q (cfs)	1.486	0.014	0.79	0.25	0.005	=	2.34

Pipe P-3: Existing 12" CPP Culvert

Inlet Invert=95.21, Outlet Invert=94.88, Length=54', n=0.014. The Manning's n value of 0.014 was determined by the pipe type (CPP-smooth interior) Table 5-3.

	k	n	A	R	S		
Q (cfs)	1.486	0.014	0.79	0.25	0.0061	=	2.59

Pipe P-4: Existing 12" CPP Culvert

Inlet Invert=95.84, Outlet Invert=94.88, Length=5', n=0.014. The Manning's n value of 0.014 was determined by the pipe type (CPP-smooth interior) Table 5-3.

	k	n	A	R	S		
Q (cfs)	1.486	0.014	0.79	0.25	.1920	=	14.51

Pipe P-5: Existing 18" CPP Culvert

Inlet Invert=95.21, Outlet Invert=94.88, Length=5', n=0.014. The Manning's n value of 0.014 was determined by the pipe type (CPP-smooth interior) Table 5-3.

	k	n	A	R	S	
Q (cfs)	1.486	0.014	1.77	0.375	.004	= 14



DATE: December 12, 2020

TO: Laurel Christian, CDD

FROM: Autumn Sapp, Engineering & Public Works Department

RE: SMP20200004 – Delta Drive Subdivision, Major Subdivision Engineering & Public Works Department Review

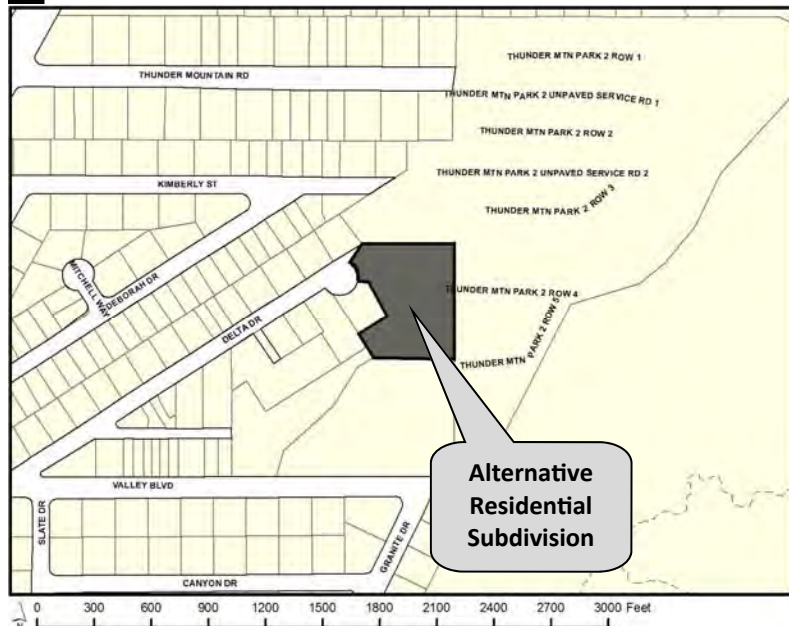
Engineering and Public Works Department has completed a preliminary review of the proposed Delta Drive Subdivision to create a total of 15 lots. The following has been determined as required by CBJ code 49.15.402(c)(4)(e):

1. The submitted drainage plan is conforms to drainage and water quality requirements. The plan is approved by Engineering.
2. The Delta Drive Subdivision will not change the current connection with Delta Drive and the existing configuration is acceptable.
3. The proposed improvements conform to the requirements of this title and can be feasibly constructed in accordance with Title 49.

Invitation to Comment

On a proposal to be heard by the CBJ Planning Commission

Your Community, Your Voice



155 S. Seward Street Juneau, Alaska 99801

TO:

An application has been submitted for consideration and public hearing by the Planning Commission for an **Alternative Residential Subdivision** creating **15 lots** at **4090 Delta Drive** in a **D18 zone**.

TIMELINE

Staff Report expected to be posted **Monday, January 4, 2020** at <https://juneau.org/community-development/planning-commission>. Find hearing results, meeting minutes and more here as well.

Now through Dec. 21

Comments received during this period will be sent to the Planner, **Laurel Christian**, to be included as an attachment in the staff report.

Dec. 22 — noon, Jan. 11

Comments received during this period will be sent to Commissioners to read in preparation for the hearing.

HEARING DATE & TIME: 7:00 pm, Jan. 12, 2021

This virtual meeting will be by video and telephonic participation only. To join the Webinar, visit: <https://juneau.zoom.us/j/93626358724>. The Webinar ID is: 936 2635 8724. To join by telephone, call: +1 253 215 8782 or +1 346 248 7799 or +1 669 900 6833 or +1 301 715 8592 or +1 312 626 6799 or +1 929 436 2866 and enter the Webinar ID.

Jan. 13

The results of the hearing will be posted online.

Phone: (907)586-0715 ♦ Email: pc_comments@juneau.org
Mail: Community Development, 155 S. Seward St, Juneau AK 99801

Printed December 7, 2020

Case No.: SMP2020 0004/ARP2020 0001
Parcel No.: 5B2401620011
CBJ Parcel Viewer: <http://epv.juneau.org>

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

Laurel Christian

From: dbloommer@bicknellinc.com
Sent: Monday, December 28, 2020 10:23 AM
To: Laurel Christian
Subject: Delta Dr Sign Posted
Attachments: Resized_20201228_092437.jpeg

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Hi Laurel,

Here is the picture of the sign at Delta Dr. Let me know if we need to do anything else.

Thanks,
David



Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report



(907) 586-0757
Jill.Maclean@juneau.org
www.juneau.org/CDD
155 S. Seward Street • Juneau, AK 99801

MEMO

From:

Jill Maclean, AICP, Director

To:

Michael LeVine, Planning Commission Chair

Case Number:

ARP2020 0001 and SMP2020 0004

RE: Staff Report Correction

Staff received several questions and requests for clarification on staff reports ARP2020 0001 and SMP2020 0004. Below, please find corrections and / or additional clarification. Items bolded are necessary revisions or corrections to the staff report.

ARP2020 0001:

- **Page 3 of 12 (packet page 61): Inaccurately states that only single-family and accessory apartments are permissible. The Alternative Residential Subdivision (ARS) ordinance allows for residential uses (49.15.920(m)), including multifamily dwellings, e.g. condominiums, and is not restricted to single-family dwellings. The residential uses follow the underlying zoning district.**

SMP2020 0004:

- Page 4 of 8 (packet page 149): Clarifying that the staff report is accurate for the number of dwelling units proposed on this site. Density, under the ARS 49.15.920(e)(1) *Density*, is calculated by, *"The number of dwelling units permitted in the development shall be calculated by multiplying the maximum number of dwelling units per gross acre permitted in the underlying zoning district by the number of acres in the alternative residential subdivision and rounding to the nearest whole number."*
 - In this situation, the parent lot is 79,189 square feet in a D18 zoning district. Minimum lot size is 5,000 square feet, and the maximum number of dwelling units is 33. The developer is proposing 14 dwelling units.
 - In other words, the density is based upon the acreage of the parent lot; and a developer may choose how to divvy up the density; and even if a unit-lot on its own meets or exceeds the minimum lot size of the underlying zoning district, additional units are not permissible if the maximum number of dwelling units already exists on the other unit lots. This does not include density bonuses, which are not a consideration for this project.
 - Should the developer choose to modify the type of dwellings or add additional dwelling units, a modification to the plat and / or the Alternative Residential Plan may be required depending on the proposal.

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- Page 5 of 8 (packet page 150): Clarifying that the staff report is accurate. Roads within an ARS development may be private *or* public (if the developer builds to city standards, the road may be adopted as a public street).
 - An ARS is permitted to have a private access roads within the development, if the criteria in 49.15.920(f) is met, and these are listed and discussed in the table. The table establishes that the ARS meets the criteria for private access within the development.
 - Exempting the access within the development from 49.35 does not exempt the parent lot from fronting and accessing onto a publically maintained right-of-way. Access to the development must be through a public right-of-way – this is criteria is met, because the parent lot fronts accesses onto Delta Drive.

Page 4 of 8 (packet page 149) Plat Notes:

- **First Plat Note on this page is not completely accurate and should be DELETED.** Plat Note Reads: At time of recording, Lots 2 through 11 and 13 through 15 are limited to one single-family dwelling. Lot 12 may be permitted one single-family dwelling and one accessory apartment. See CBJ 49.15 article ix for current regulations.
 - (Note: Generally, in multi-family zoning districts, units are units and are not considered “accessory apartments” because multiple units are permitted on one lot).
- Third Plat Note should be clarified to read:
 - **Plat Note: Per CBJ 49.15.920(j), No parking areas, dwelling units, unit-lots, or permissible uses may be located within the perimeter buffer. Access to the development may cross a portion of the buffer.**



Planning Commission

(907) 586-0715
PC_Comments@juneau.org
www.juneau.org/plancomm
155 S. Seward Street • Juneau, AK 99801

PLANNING COMMISSION NOTICE OF DECISION

Date: January 25, 2021
File No.: ARP2020 0001

Bicknell, Inc.
Attn: David Blommer
P.O. Box 33517
Juneau, AK 99803

Proposal: Applicant proposes an Alternative Residential Subdivision creating 15 lots

Property Address: 4090 Delta Drive

Legal Description: Thunder Mountain Park Tract 1A

Parcel Code No.: 5B2401620011

Hearing Date: January 12, 2021

The Planning Commission, at its regular public meeting, adopted the analysis and findings listed in the attached memorandum dated December 29, 2020, and late file memorandum (provided January 12, 2021) with amendments and approved the Alternative Residential Subdivision Preliminary Plan for a 15-lot subdivision to be conducted as described in the project description and project drawings submitted with the application (and with the following conditions :)

1. Prior to approval of the Final Alternative Residential Subdivision Plan, the applicant shall submit homeowners association, or similar, documents that comply with the requirements of 49.15.950(b);
2. Prior to the issuance of the eleventh (11) temporary certificate of occupancy for the development, access to and within the development shall be paved;
3. Prior to the issuance of the first temporary certificate of occupancy, the master water meter for the development shall be installed by the developer; and
4. Per CBJ 49.15.920(o), the final mailbox location shall be reviewed and approved by the CDD Director, and installed prior to the issuance of the first temporary certificate of occupancy.

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Attachments: December 29, 2020, memorandum from Laurel Christian, Community Development, to the CBJ Planning Commission regarding ARP2020 0001; and memorandum from Jill Maclean, Director, AICP, Community Development regarding ARP2020 0001 and SMP2020 0004 provided January 12, 2021.

This Notice of Decision does not authorize construction activity. Prior to starting any project, it is the applicant's responsibility to obtain the required building permits.

This Notice of Decision constitutes a final decision of the CBJ Planning Commission. Appeals must be brought to the CBJ Assembly in accordance with CBJ \$01.50.030. Appeals must be filed by 4:30 P.M. on the day twenty days from the date the decision is filed with the City Clerk, pursuant to CBJ \$01.50.030 (c). Any action by the applicant in reliance on the decision of the Planning Commission shall be at the risk that the decision may be reversed on appeal (CBJ \$49.20.120).

Effective Date: The permit is effective upon approval by the Commission, January 12, 2021.

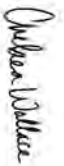
Expiration Date: The permit will expire 18 months after the effective date, or July 12, 2022, if no Building Permit has been issued and substantial construction progress has not been made in accordance with the plans for which the development permit was authorized. Application for permit extension must be submitted thirty days prior to the expiration date.



January 26, 2021

Michael Levine, Chair
Planning Commission

Date



January 26, 2021

Filed With City Clerk

Date

cc: Plan Review

NOTE: The Americans with Disabilities Act (ADA) is a federal civil rights law that may affect this development project. ADA regulations have access requirements above and beyond CBJ-adopted regulations. Owners and designers are responsible for compliance with ADA. Contact an ADA - trained architect or other ADA trained personnel with questions about the ADA. Department of Justice (202) 272-5434, or fax (202) 272-5447, NW Disability Business Technical Center (800) 949-4232, or fax (360) 438-3208.

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PLANNING COMMISSION STAFF REPORT ALTERNATIVE RESIDENTIAL SUBDIVISION PLAN ARP2020 0001 HEARING DATE: JANUARY 12, 2020

(907) 586-0715
CDD_Admin@juneau.org
www.juneau.org/CDD
155 S. Seward Street • Juneau, AK 99801

DATE: December 29, 2020
TO: Michael LeVine, Chair, Planning Commission
BY: Laurel Christian, Planner II *Laurel Christian*
THROUGH: Jill Maclean, Director, AICP

PROPOSAL: Preliminary Plan approval for the Delta Drive Subdivision, an Alternative Residential Subdivision creating 14 unit-lots and 1 parent lot

STAFF RECOMMENDATION: Approval with conditions

KEY CONSIDERATIONS FOR REVIEW:

- 14 lots will be for single-family dwellings.
- The remaining parent lot will contain the perimeter buffer, privately maintained access road, and other common amenities.
- A density bonus is not requested.
- The proposed perimeter buffer is equal to the setbacks for the zoning district.
- This approval is subject to SMP20200004.

GENERAL INFORMATION	
Property Owner	Bicknell Inc.
Applicant	Bicknell Inc.
Property Address	4090 Delta Drive
Legal Description	Thunder Mountain Park Tract 1A
Parcel Number	5B2401620011
Zoning	D18 Multi-family Residential
Lot Size	79,189 sq. ft.
Water/Sewer	Public
Access	Delta Drive
Existing Land Use	Vacant
Associated Applications	SMP20200004

ALTERNATIVE ACTIONS:

1. **Amend:** require additional conditions, or delete or modify the recommended conditions.
2. **Deny:** deny the permit and adopt new findings for items 1-14 below that support the denial.
3. **Continue:** to a future meeting date if determined that additional information or analysis is needed to make a decision, or if additional testimony is warranted.

ASSEMBLY ACTION REQUIRED:

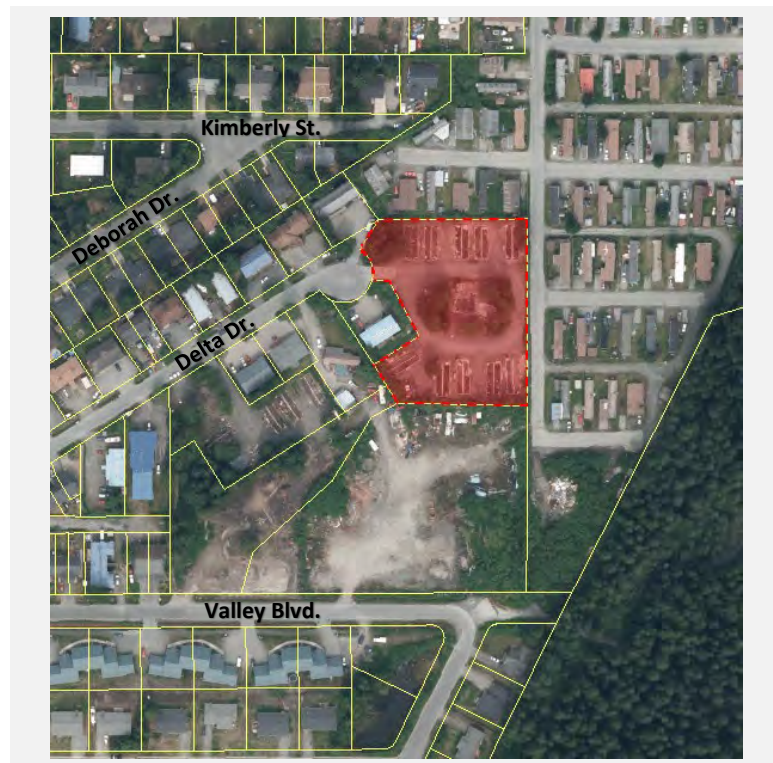
Assembly action is not required for this permit.

STANDARD OF REVIEW:

- Quasi-judicial decision
- Requires five (5) affirmative votes for approval
- Code Provisions:
 - o 49.15.920
 - o 49.15.930
 - o 49.15.940

The Commission shall hear and decide the case per 49.15.900 - Purpose. *The general purpose of this article is to provide reasonable minimum standards and procedures for unit-lot residential communities in which all or some of the lots do not substantially conform to the minimum requirements for a traditional subdivided lot. This article provides a housing option to allow dwellings on unit-lots to be conveyed by long-term leases, less than fee-simple ownership, or fee-simple ownership, including condominium and other common-interest communities*

SITE FEATURES AND ZONING



SURROUNDING ZONING AND LAND USES	
North (D18)	Thunder Mountain Mobile Home Park
South (D18)	Vacant
East (D18)	Thunder Mountain Mobile Home Park
West (D18)	Multi-family four-plex

SITE FEATURES	
Anadromous	None
Flood Zone	None
Hazard	None
Hillside	None
Wetlands	None
Parking District	None
Historic District	None
Overlay Districts	None

BACKGROUND INFORMATION

Project Description – The applicant requests a preliminary plan approval for the Delta Drive Subdivision, an Alternative Residential Subdivision (ARS) creating 15 lots. The proposal would create 14 unit-lots for single-family dwellings and one (1) parent-lot containing the perimeter buffer, privately maintained access road, and other common amenities (15 lots total).

A project narrative can be found in Attachment A and the preliminary plan can be found in Attachment B.

Background – Background information includes a discussion of the basics of the ARS, the process for approval, and relevant development history for the lot.

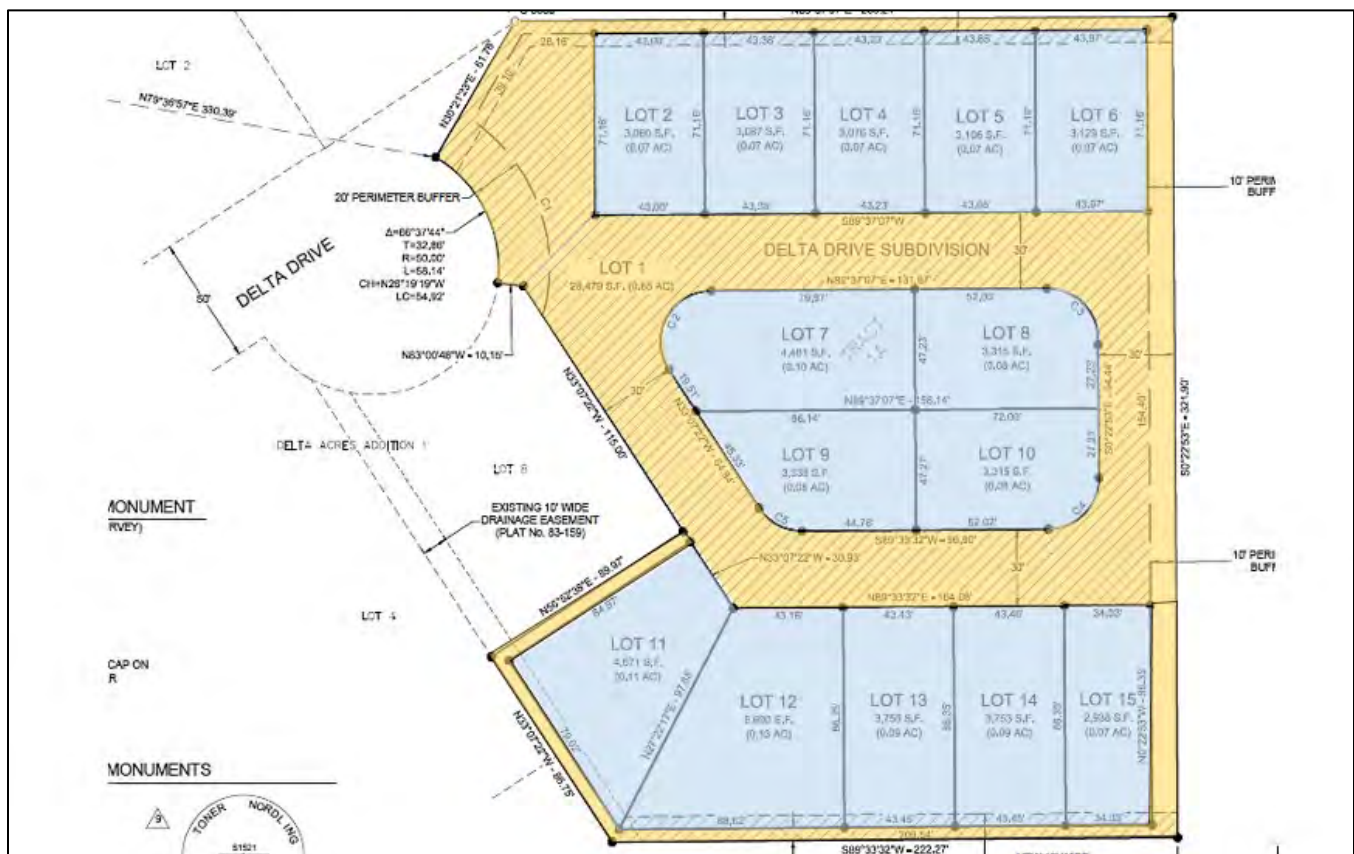
ARS Design Basics

The ARS provides flexibility in land use regulations in order to promote its most appropriate use for unit-lot residential communities: to encourage residential developments that are planned, designed and developed to function as integral units with common facilities.

The ARS facilitates the construction of housing in a flexible design through:

- Allowing smaller-than-required lot sizes;
- Providing density bonuses for certain amenities if desired; and
- Allowing private streets and utilities to serve the community.

There are two types of lots in an ARS:



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ARS Process

The ARS process requires two preliminary applications, both of which are being presented at the same Planning Commission meeting.

- This application (ARP20200001) is for review of the preliminary plan for the ARS. This application must be acted upon first. The plan is reviewed for compliance with applicable ARS code and design guidelines [CBJ 49.15.900].
- A separate application (SMP20200004) is for approval of the preliminary plat for the ARS. The plat is reviewed for compliance with subdivision code [CBJ 49.15.402].

If the preliminary plan and preliminary plat are approved, the developer may apply for review of the ARS final plan and ARS final plat. These two applications may be presented at the same public meeting, or separately. The purpose of a second review by the Commission is to ensure the final plan conforms with the approved preliminary plan and that any conditions of approval have been met.

Development History

The table below summarizes relevant history for the lot and proposed development.

Item	Summary
Plat History	In 1992, the lot was platted as an expansion of the Thunder Mountain Park (plat no. 92-18). No restrictive plat notes exist for the lot.
Land Use Cases	In 1992, a conditional use permit (CUP) was issued to expand the Thunder Mountain Mobile Home park onto the lot (USE-CU92-01). In 2013, another CUP was issued for a 12-unit apartment building on the lot; this permit expired (USE20130017). The lot is currently vacant.
Building Permits	In 1992, a building permit was issued to place 10 modular homes on permanent concrete foundations (BLD-0747301). In 2013, a demolition permit was issued to remove the modular homes (DMO20130007). The lot currently contains the 10 concrete foundations with no modular structures. The applicant intends to repurpose the foundations.

ANALYSIS

Phasing – The proposed ARS will not be phased.

Zoning District and Dimensional Standards – The parent lot meets or exceeds dimensional requirements for an ARS in the D18 zoning district.

Topic and Code Reference	Summary	Complies
49.15.920(b) Zoning Districts	The lot is within the D18 multi-family zoning district. ARS is allowed in this zoning district.	☒ Yes ☐ No ☐ N/A
49.15.920(c) Lot Size	The parent lot measures 79,189 square feet and exceeds the required 150 percent times the minimum lot size for the D18 zoning district (5,000 square feet).	☒ Yes ☐ No ☐ N/A

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Topic and Code Reference	Summary	Complies
49.15.920(d) Other Dimensional Standards	The minimum lot dimensions, lot coverage, and vegetative coverage shall be applied to the parent lot and not the unit-lots. Preliminary construction drawings show these requirements can reasonably be met.	☒ Yes ☐ No ☐ N/A

Density – Per 49.15.920(e)(1), *The number of dwelling units permitted in the development shall be calculated by multiplying the maximum number of dwelling units per gross acre permitted in the underlying zoning district by the number of acres in the alternative residential subdivision and rounding to the nearest whole number.*

Maximum Dwelling Units Per Acre	Parent Lot Size	Maximum Density	Number of Dwelling Units Proposed
18	79,189 sq. ft. (1.8179 acres)	33 dwelling units	14

The proposed ARS creates 14 unit-lots for single-family dwellings and one (1) parent-lot for common elements. As demonstrated in the table above, the applicant is not exceeding the maximum allowed density for the zoning district.

Density Bonus – The applicant has not requested a density bonus.

Frontage and Access – Per 49.15.920(f), *The parent lot shall front on and be accessed by a publically maintained right-of-way. Access within the development may be exempted from 49.35 and be privately owned and maintained if it complies with the following requirements (listed in the table below).*

The parent lot has frontage and access onto Delta Drive, a CBJ right-of-way. The applicant proposes a privately maintained access within the ARS. The privately maintained access will be 20 feet in width and paved. The proposed access complies with CBJ 49.15.920(f), as discussed in the table below.

Topic and Code Reference	Summary	Complies	Recommended Condition
49.15.920(f)(1) Location	As shown on the preliminary construction drawings, the access road will be located completely on the parent lot.	☒ Yes ☐ No ☐ N/A	
49.15.920(f)(2) Safety	There is no information that suggests the proposed access will endanger public safety.	☒ Yes ☐ No ☐ N/A	
49.15.920(f)(3) Emergency Services	CCFR has reviewed the preliminary construction drawings and finds the proposed access is sufficient for emergency service response.	☒ Yes ☐ No ☐ N/A	
49.15.920(f)(4) Pavement	As shown on the preliminary construction drawings, the applicants propose a 20-foot wide asphalt surface.	☒ Yes ☐ No ☐ N/A	Condition: Prior to the issuance of the first temporary certificate of occupancy, access to and within the development shall be paved.

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49.15.920(f)(5) Homeowners Association (HOA)	The ARS requires an HOA, or similar entity be created for the development. The HOA documents should be submitted with the final ARS plan. It is recommended that the applicant submit HOA, or similar, documents prior to approval of the final plan. The HOA documents shall establish that maintenance of the private access is the responsibility of the HOA.	☒ Yes ☐ No ☐ N/A	Condition: Prior to approval of the Final Alternative Residential Subdivision Plan, the applicant shall submit homeowners association, or similar, documents that comply with the requirements of 49.15.950(b).
49.15.920(f)(6) Abutting Parcels	All abutting parcels have direct and practical access onto an existing publically maintained right-of-way, so no new public rights-of-way are required.	☒ Yes ☐ No ☐ N/A	

Utilities, Drainage, and Stormwater Management – The applicant has submitted preliminary construction drawings, a preliminary water-line memo, and a preliminary drainage report (Attachment C, D, and E). There are 10 existing water and sewer services. The applicant will be required to connect each unit-lot to public water and sewer; the parent-lot is currently connected to water and sewer. After approval of the preliminary plan and preliminary plat, the applicant will submit final construction drawings for review and approval by CBJ Engineering & Public Works. Utilities, drainage, and stormwater management are further discussed in the staff report for SMP20200004.

Topic and Code Reference	Summary	Complies	Recommended Condition
49.15.920(g) Public Utilities	Preliminary construction drawings show each lot will be connected to public water and sewer and a master meter will be installed.	☒ Yes ☐ No ☐ N/A	Prior to the issuance of the first temporary certificate of occupancy, each dwelling unit shall be connected to public sewer and water, and a master meter for water shall be installed by the developer.
49.15.920(l) Stormwater Management	Preliminary construction drawings demonstrate water will be collected into drainage swales and underground storm drains, which connect to the existing drainage systems in Delta Drive.	☒ Yes ☐ No ☐ N/A	

Design Requirements – The table below discusses design requirements applied to an ARS. The proposed ARS meets these requirements.

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Topic and Code Reference	Summary	Complies	Recommended Condition
49.15.920(i) Open Space	The applicant does not propose common open space for the development. Open space is not required for an ARS in the D18 zoning district.	☐ Yes ☐ No ☒ N/A	
49.15.920(j) Perimeter Buffer	The preliminary plan shows a perimeter buffer surrounding the development that matches the setback requirements for the D18 zoning district. Staff does not recommend an increase in the required perimeter buffer. The proposed ARS is bordered by multi-family development and matches the character of the neighborhood. No density bonus has been requested, and the proposed ARS creates fewer units than the maximum density for the lot.	☒ Yes ☐ No ☐ N/A	
49.15.920(m) Permitted Uses	The applicant proposes single-family residential use. There is one unit-lot within the ARS that meets the minimum lot size for the D18 zoning district (Lot 12). This lot could accommodate a single-family dwelling with an accessory apartment. All other unit-lots would be restricted to one single-family dwelling.	☒ Yes ☐ No ☐ N/A	
49.15.920(n) Street Sign	The CBJ GIS Analyst does not recommend assigning the private access within the ARS a new street name, since it functions as an extension of Delta Drive. Each unit-lot will be assigned a Delta Drive address.	☐ Yes ☐ No ☒ N/A	
49.15.920(o) Mailboxes	Staff met on-site with the applicant and USPS on November 10, 2020. The USPS requested one centralized mailbox for all units that is located outside of the gate to the development, with adequate space for USPS vehicles to turn	☒ Yes ☐ No ☐ N/A	Condition: Per CBJ 49.15.920(o) the final mailbox location shall be reviewed and approved by the CDD Director, and installed prior to the issuance of the first temporary certificate of occupancy.

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Topic and Code Reference	Summary	Complies	Recommended Condition
	around. Per CBJ 49.15.920(o) the final mailbox location shall be reviewed and approved by the CDD Director. This should be shown on final construction drawings.		

Parking— According to 49.15.920(h), *Parking may be located on the parent lot or unit lots.* Two parking spaces are required for each single-family dwelling [49.40.210(a)]. Preliminary construction drawings show two parking spaces on each unit-lot, some provided in a stacked configuration. Stacked parking is allowed for single-family residential uses [49.40.230(b)(6)].

Traffic – According to CBJ 49.40.300(a)(2) a traffic impact analysis is not required; the development is not anticipated to generate more than 250 Average Daily Trips.

Use	Units	Trips Generated	Total Trips
Single-family	14	9.52 per dwelling	133.28

Habitat – There are no known anadromous streams or wetlands on the lot.

Hazard Zones – There are no hazard zones on the lot.

Public Health, Safety, and Welfare – There is no information that suggests the proposed ARS will harm the public health, safety, or welfare.

Property Value and Neighborhood Harmony – The CBJ Assessor stated no objections to the proposed development. There is no information that suggests the proposed development will have a negative effect on property values in the neighboring area.

The lot is located in the D18 zoning district and surrounded primarily by multi-family residential uses. A zoning map can be found in Attachment F. To the north and east is the Thunder Mountain Mobile Home park, to the south is a vacant lot which appears to be used to store construction materials, and to the west is Delta Drive, which is developed primarily with multi-family residential development. To the northwest, Deborah Drive and Kimberly Street are developed primarily with single-family dwellings within the D5 zoning district; these streets do not directly abut the proposed development.

The proposed ARS would create 14 unit-lots for single-family dwellings. The maximum density of the lot, unsubdivided, would be 33 dwelling units. The proposal is not out of character with the existing neighborhood.

AGENCY REVIEW

CDD conducted an agency review comment period between October 15 and October 31, 2020. Comments from Engineering and Public Works, the CBJ Cartographer, and Capital City Fire and Rescue are incorporated into this report. No additional comments were received.

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PUBLIC COMMENTS

CDD conducted a public comment period between December 7 and December 21, 2020. Public notice was mailed to property owners within 500 feet of the subject parcel. A public notice sign was also posted on-site two weeks prior to the scheduled hearing. At time of writing this staff report, no public comments were received.

CONFORMITY WITH ADOPTED PLANS

The proposed development is in general conformity with the 2013 Comprehensive Plan, 2016 Housing Action Plan, and the 2015 Juneau Economic Development Plan. Plans call for the development of housing, especially in a flexible format that fits the character of existing neighborhoods and provides housing for a variety of CBJ residents and economic groups.

PLAN	Chapter	Page No.	Item	Summary
2013 Comprehensive Plan	4	36-37	Policy 4.1/4.2	Policies promote providing an adequate supply of various types of housing for all CBJ residents and economic groups.
	10	130	Policy 10.2	Policy promotes flexibility and creativity in residential development within the urban service boundary.
	11	157	Land Use Designation	Complies with the <i>Medium Density Residential</i> land use designation which allows for residential development between 5-20 units per acre (Attachment F).
2016 Housing Action Plan	Part 2	35	Production Target	The Housing action plan sets an annual goal of 66 new dwelling units. Proposal creates 14 new housing units.
2015 Juneau Economic Development Plan	5	103	Initiative	Plan calls for promoting housing affordability and availability.

FINDINGS

Alternative Residential Subdivision Preliminary Plan Approval – Per CBJ 49.15.940(d), the director makes the following findings on the proposed Alternative Residential Subdivision Preliminary Plan:

1. Does the proposed development protect natural features and avoid natural hazards by reserving them as open space?

Analysis: There are no natural features of the lot or natural hazards that should be preserved as open space.

Finding: Not applicable.

2. Is the proposed development consistent with Title 49, the Land Use Code?

Analysis: No further analysis needed.

Finding: Yes. With recommended conditions, the proposed development is consistent with Title 49.

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- 3. Does the development incorporate perimeter buffers sufficient to minimize off-site impacts of the subdivision and to maximize harmony with the neighborhood?**

Analysis: The proposed development incorporates a perimeter buffer equal to the setbacks required for the D18 zoning district. The lot is surrounded by multi-family development and is not being developed to the maximum density allowed. Staff finds the perimeter buffer is adequate to ensure neighborhood harmony.

Finding: Yes. The proposed development incorporates perimeter buffers sufficient to minimize off-site impacts and maximize neighborhood harmony.

- 4. Do utilities proposed for connection to the City and Borough system meet City and Borough standards, and all others are consistent with sound engineering practices, as determined by the City and Borough Engineering and Public Works Department?**

Analysis: No additional analysis required.

Finding: Yes. The CBJ Engineering & Public Works Department has reviewed preliminary construction plans and has determined that the development can reasonably connect to CBJ services and meet CBJ standards.

- 5. Does the configuration of the development provide for economy and efficiency in utilities, housing construction, access, parking and circulation?**

Analysis: The proposal will develop a lot that has been vacant since 2013. The development will repurpose existing foundations and utilities provided to the lot. The proposal provides in-fill housing development that meets the standards of Title 49 and provides small lots for small homes, creating an opportunity for efficient and affordable construction of housing units.

Finding: Yes. The proposed development maximizes economy and efficiency in utilities, housing construction, access, parking and circulation.

- 6. If the approval is for a phased development, is each phase consistent with the preliminary development plan and design of the entire alternative residential subdivision?**

Analysis: The proposed ARS is not phased.

Finding: Not applicable.

- 7. Does the proposed development adequately address the cumulative impacts of the phased development on the neighborhood and the natural environment?**

Analysis: The proposed ARS is not phased.

Finding: Not applicable.

- 8. If the approval includes an allotment of a density bonus, the density bonus complies with section 49.15.920(e)(4).**

Analysis: A density bonus has not been requested.

Finding: Not applicable.

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Additionally, in accordance with CBJ 49.15.930 and CBJ 49.15.330 (e) & (f), the director makes the following findings on the proposed Alternative Residential Subdivision Preliminary Plan:

9. *Is the application for the requested Alternative Residential Subdivision Preliminary Plan complete?*

Analysis: No further analysis needed.

Finding: Yes. The application contains the information necessary to conduct full review of the proposed operations. The application submittal by the applicant, including the appropriate fees, substantially conforms to the requirements of CBJ Chapter 49.15.

10. *Is the proposed use appropriate according to the Table of Permissible Uses?*

Analysis: The application is for single-family dwellings. The use is listed at CBJ 49.25.300, Section 1.100 for the D18 zoning district.

Finding: Yes. The requested permit is appropriate according to the Table of Permissible Uses.

11. *Will the proposed development comply with the other requirements of this chapter?*

Analysis: The proposed site design complies with parking, vegetative cover, buffer, utility, and other requirements of Title 49.

Finding: Yes. With the recommended conditions, the proposed development will comply with Title 49, including parking, lighting, vegetative cover, and ARS design requirements.

12. *Will the proposed development materially endanger the public health, safety, or welfare?*

Analysis: No additional analysis required.

Finding: No. There is no evidence to suggest that with appropriate conditions, the requested ARS in a D18 zoning district, will materially endanger the public health or safety.

13. *Will the proposed development substantially decrease the value of or be out of harmony with property in the neighboring area?*

Analysis: No additional analysis required.

Finding: No. There is no evidence to suggest that with appropriate conditions, the requested ARS, in a D18 zoning district will substantially decrease the value or be out of harmony with the property in the neighboring area.

14. *Will the proposed development be in general conformity with the land use plan, thoroughfare plan, or other officially adopted plans?*

Analysis: The proposed ARS creates additional housing, plans and policies generally support housing development.

Finding: Yes. The proposed ARS, with the recommended conditions, will be in general conformity with the 2013 Comprehensive Plan, 2016 Housing Action Plan, and the 2015 Juneau Economic Development Plan.

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

RECOMMENDATION

Staff recommends the Planning Commission adopt the director's analysis and findings and **APPROVE** the preliminary plan for the Delta Drive Subdivision, an Alternative Residential Subdivision creating 14 unit-lots and one (1) parent lot. This permit would allow the applicant to submit for the final plan.

This approval is subject to the following conditions:

1. Prior to approval of the Final Alternative Residential Subdivision Plan, the applicant shall submit homeowners association, or similar, documents that comply with the requirements of 49.15.950(b);
2. Prior to the issuance of the first temporary certificate of occupancy for the development, access to and within the development shall be paved;
3. Prior to the issuance of the first temporary certificate of occupancy, each dwelling unit shall be connected to public sewer and water, and a master meter for water shall be installed by the developer; and
4. Per CBJ 49.15.920(o), the final mailbox location shall be reviewed and approved by the CDD Director, and installed prior to the issuance of the first temporary certificate of occupancy.

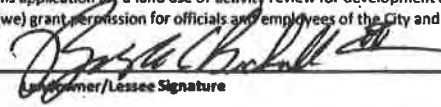
STAFF REPORT ATTACHMENTS

Item	Description
Attachment A	Application Packet
Attachment B	Preliminary Plan
Attachment C	Preliminary Construction Drawings
Attachment D	Water Memorandum
Attachment E	Preliminary Drainage Report
Attachment F	Zoning Map and Comprehensive Plan Land Use Designation Map
Attachment G	Abutters Notice and Public Notice Sign



DEVELOPMENT PERMIT APPLICATION

NOTE: Development Permit Application forms must accompany all other Community Development Department land use applications.

To be completed by Applicant	PROPERTY LOCATION		
	Physical Address 4090 Delta Drive, Juneau, AK 99801		
	Legal Description(s) (Subdivision, Survey, Block, Tract, Lot) Thunder Mountain Park TR 1A		
	Parcel Number(s) 5B2401620011		
	☐ This property located in the downtown historic district ☐ This property located in a mapped hazard area, if so, which _____		
	LANDOWNER/ LESSEE		
	Property Owner Bicknell, Inc.	Contact Person David Blommer	
	Mailing Address P.O. Box 33517	Phone Number(s) 907-789-5727	
	E-mail Address dblommer@bicknellinc.com		
	LANDOWNER/ LESSEE CONSENT Required for Planning Permits, not needed on Building/ Engineering Permits		
I am (we are) the owner(s) or lessee(s) of the property subject to this application and I (we) consent as follows: A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission. B. I (we) grant permission for officials and employees of the City and Borough of Juneau to inspect my property as needed for purposes of this application.			
X  Landowner/ Lessee Signature		10/8/20 Date	
X _____ Landowner/ Lessee Signature		_____ Date	
NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours and will attempt to contact the landowner in addition to the formal consent given above. Further, members of the Planning Commission may visit the property before the scheduled public hearing date.			
APPLICANT If the same as Landowner, enter SAME			
Applicant SAME	Contact Person SAME		
Mailing Address SAME	Phone Number(s)		
E-mail Address SAME			
X _____ Applicant's Signature		_____ Date of Application	

DEPARTMENT USE ONLY BELOW THIS LINE

RECEIVED

OCT 12 2020

PERMIT CENTER/CDD

This form and all documents associated with it are public record once submitted.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

For assistance filling out this form, contact the Permit Center at 586-0770.

Intake Initials 
Case Number Smp20200004
Date Received 10/12/20



SUBDIVISION AND DEVELOPMENT PLAN APPLICATION

See subdivision hand-outs for more information regarding the permitting process and the materials required for a complete application.

NOTE: Must be accompanied by a DEVELOPMENT PERMIT APPLICATION form.

PROJECT SUMMARY

An alternative residential subdivision (ARS) of Thunder Mountain Park TR 1A into Delta Drive Subdivision comprised of 15 unit lots and 1 parent lot.

Number of Existing Parcels 1 Total Land Area 1.82 acres Number of Resulting Parcels 16

HAS THE PARCEL BEEN CREATED BY A MINOR SUBDIVISION IN THE PRECEDING 24 MONTHS

☐ NO

☐ YES Case Number _____

TYPE OF SUBDIVISION OR PLATTING APPROVAL REQUESTED

MINOR DEVELOPMENT

(changing or creating 13 or fewer lots)

- ☐ Preliminary Plat (MIP)
☐ Final Plat (MIF)
☐ Panhandle Subdivision
☐ Accretion Survey
☐ Boundary Adjustment
☐ Lot Consolidation (SLC)
☐ Bungalow Lot Subdivision
☐ Common Wall/Zero Lot Subdivision
☐ Other _____

MAJOR DEVELOPMENT

(changing or creating 14 or more lots)

- ☒ Preliminary Plat (SMP)
☐ Final Plat (SMF)
☐ Preliminary Development Plan – PUD (PDP)
☐ Final Development Plan – PUD (PDF)
☐ Development Plan – ARS (ARP)
☐ Development Plan – ARS (ARF)
☐ Bungalow Lot Subdivision
☐ Common Wall/Zero Lot Subdivision
☐ Other _____

ALL REQUIRED DOCUMENTS ATTACHED

- ☒ Pre-application conference notes
☒ Narrative including:
☒ Legal description(s) of property to be subdivided
☒ Existing structures on the land
☒ Zoning district
☒ Density
☒ Access
☒ Current and proposed use of any structures
☒ Utilities available
☒ Unique characteristics of the land or structure(s)

☒ Preliminary Plat checklist

-----DEPARTMENT USE ONLY BELOW THIS LINE-----

SUBDIVISION/PLATTING FEES	Fees	Check No.	Receipt	Date
Application Fees	\$ <u>1760.00</u>			
Admin. of Guarantees <i>Public Notice Sign</i>	\$ <u>150.00</u>			
Adjustment	\$ _____			
Total Fee	\$ <u>1910.00</u>			

*major sub:
\$110 per lot
X 16 lots*

RECEIVED

OCT 12 2020

PERMIT CENTER/CDD

For assistance filling out this form, contact the Permit Center at 586-0770.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

Case Number

Smp20200004

Date Received

10/12/20



October 9, 2020

Laurel Christian, Planner II
City and Borough of Juneau
Community Development Department
155 S. Seward St.
Juneau, AK 99801

SUBJECT: Delta Drive Subdivision - Alternative Residential Subdivision
Project Narrative – PDC Project No. 20098JN

Dear Laurel;

On behalf of our client Bicknell Inc., PDC Engineers (PDC) is submitting this project narrative as part of the Delta Drive Subdivision Alternative Residential Subdivision (ARS) application. The property to be subdivided under the CBJ ARS code has a legal description of Thunder Mountain Park TR 1A with a land area of 79,189 square feet. Currently there are no dwelling structures on the property. Ten (10) existing concrete foundations exist on the property from where previous modular homes were located that have since been removed.

CBJ Zoning - The property is zoned D-18 Multifamily with an allowable density of 18 units per acre. The proposed use of the structures to be developed within the ARS will be residential and will meet the permissible uses as outlined for their zoning district and in the ARS code. The surrounding neighborhood is similarly zoned D-18 and is made up of single family and multi-family residences. The proposed development will be in harmony with the surrounding neighborhood.

Access - The existing parcel is accessed from the cul-de-sac at the end of Delta Drive, a CBJ owned and maintained paved roadway.

Utilities – CBJ public water and sanitary sewer utilities currently service the property. An existing 2-inch water line coming from the end of the existing 6-inch water line in Delta Drive supplies water to this property. Individual $\frac{3}{4}$ " water services are located from the 2-inch line within the property serving the original 10 modular homes. A 6-inch PVC sanitary sewer line exists within the property acting as the sewer collector. This 6-inch sewer pipe connects to the CBJ sewer main located in the Delta Drive cul-de-sac. Individual 4-inch PVC sewer services coming from the building foundations connect to the 6-inch sewer. Under the CBJ Delta Drive Reconstruction project scheduled for construction in the Spring/Summer of 2021, new water and sanitary sewer utilities will be provided to the lot line of this property. An 8-inch PVC sewer service will be provided and an 8-inch HDPE water line. The Delta Drive Subdivision project will connect to these new services and extend into the subdivision. The existing sewer system has been found to be in good condition and will continue to be reused. Lots which previously did not have a 4-inch

Anchorage | Fairbanks | Juneau | Palmer | Soldotna
9109 Mendenhall Mall Road, Suite 4, Juneau, Alaska 99801
907.780.6060
www.PDCENG.com

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Delta Drive Subdivision - ARS
October 9, 2020
Page 2

sewer service will have a new ones installed. The subdivision has an existing 2" Poly water main serving the existing lots. PDC water system analysis (attached) indicates that the existing 2" water service can supply adequate flow and pressure to 7 dwelling units. There are two 2" Poly water line branches that will connect to the new 8" HDPE line. The existing 2" poly water line will be flushed, disinfected and pressure testing in compliance with CBJ Standards for domestic water supply. Existing 3/4" water services will be used or new 1-inch Poly water services will be installed. A master water meter with vault structure will be installed prior to service lines.

Drainage – Surface storm water will be collected in drainage swales on the perimeter and interior lots of the property. The drainage system will involve construction of drainage swales, underground storm drain pipe and underdrain system to safely route the drainage to the existing Delta Drive drainage system which is planned for reconstruction in Spring/Summer 2021 by CBJ. As the designers for CBJ on the Delta Drive Reconstruction project, the storm drain improvements have been designed to accommodate the Delta Drive Subdivision storm drainage. There are two locations where storm drainage will discharge to Delta Drive, both of these locations have pipe sized at 12" diameter. Lots 11-15 will have a drainage swale near the rear of the property and then transition to an 8" underdrain in an existing 10' drainage easement that goes to a new culvert inlet being installed under the Delta Drive Reconstruction project. Lots 7-10 (new foundations) will be graded to drain to a drainage swale in the front of the lots where storm drainage will be collected and routed underground through a 12" drain pipe to the discharge location at the new culvert on Delta Drive. Lots 1-6 will have a perimeter drainage swale at the rear of the property that is graded to drain to the new culvert being installed under the CBJ Delta Drive Reconstruction project.

Parking and Circulation– Each lot will have two parking spaces as shown in the site plan. The existing gravel roadway will be reconstructed to accommodate a 20' wide paved access road through the property. This paved roadway will allow for safe and convenient emergency fire vehicle access throughout the subdivision.

Buffer/Setback – A perimeter buffer has been shown on the site plan with a new wooden fence located at the property line for screening and privacy. Buffers match the required setbacks for this zoning district.

Vegetative Cover – The parent lot has roughly 46% vegetative cover.

Lighting – Lighting will be installed on the individual structures.

Mailbox, Garbage and Snow Storage – CBJ Standard Mailboxes have been shown on Lot 1 to allow for each lot to have US Postal mail delivery. Two garbage dumpsters have been shown on Lot 1 to allow for refuse to be placed from each lot. Snow storage has been shown on Lot 1.

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Delta Drive Subdivision - ARS
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Should you have any questions or require any additional information, please do not hesitate to contact me at your convenience.

Sincerely,

A handwritten signature in black ink that reads "J. Mark Pusich". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

J. Mark Pusich, PE
Principal | Civil/Structural Engineer
PDC Engineers

Attachments: ARS Application: CBJ Development Application, ARS Subdivision Preliminary Plat, Lot Closure Comps, Subdivision Application, Preliminary Plat Checklist, Pre-App meeting minutes, Construction Improvement Drawings

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report



(907) 586-0715
CDD Admin@juneau.org
www.juneau.org/CDD
155 S. Seward Street • Juneau, AK 99801

Delta Drive Alternative Residential Subdivision

Case Number: PAC20200026

Applicant: Spike Bicknell & David Blommer

Property Owner: Delta Park LLC

Property Address: 4090 Delta Drive

Parcel Code Number: 5B2401620011

Site Size: 79,189 Square Feet

Zoning: D-18

Existing Land Use: Manufactured Homes

Conference Date:	4/29/20
Report Issued:	05/06/20
List of Attendees	

Note: Copies of the Pre-Application Conference Report will be emailed, instead of mailed, to participants who have provided their email address below.

Name	Title	Email address
David Blommer	Applicant	dblommer@bicknellinc.com
Laurel Christian	Planning	Laurel.christian@juneau.org
Kyle Paw	Permit staff	Kyle.paw@juneau.org
Autumn Sapp	General Engineering	Autumn.Sapp@juneau.org
Mark Pusich	PDC	MarkPusich@pdceng.com

Pre-Application Conference Final Report

Conference Summary

Questions/issues/agreements identified at the conference that weren't identified in the attached reports.

The following is a list of issues, comments and proposed actions, and requested technical submittal items that were discussed at the pre-application conference.

The Alternative Residential Subdivision (ARS) requires a two-step approval process. The ARS preliminary plan is reviewed the and then then ARS final plan is reviewed. A major subdivision application is also required. The applicant may apply for the preliminary ARS plan and preliminary major subdivision plat at the same time.

The preliminary ARS plan is reviewed through the conditional use permit process with additional requirements found in the ARS section of code. The major subdivision plat is reviewed for platting requirements. The ARS section of code is attached to this report, approval criteria are highlighted.

Planning Division

1. **Zoning** – D18 Zoning District. There is no minimum lot size for the unit lots, however; you should demonstrate on the plan their size, and show how large the parent parcel is. CBJ 49.80 Definitions for Parent Lot and Unit Lot:

Parent lot means the original lot and the residual area from which unit-lots are created through an alternative residential subdivision.

Unit-lot means any lot, site, parcel, unit-site, and similar geographically defined property that is created through an alternative residential subdivision and that is substantially smaller than the minimum lot size required for the zoning district

2. **Setback/buffer** – There are no setbacks for the unit lots. A perimeter buffer is required in lieu of the setback requirements of this title on the parent lot. The buffer shall not be less than the setbacks required for the zoning district. Setbacks for the D18 zoning district are: Front: 20'; Rear: 10'; Side: 5'; Street side:13'
 - a. The commission may enlarge the required buffer to up to 25 feet.
 - b. The buffer shall be vegetated unless the commission requires non-vegetated screening. A buffer may include fencing, natural berm, or other similar features.
 - c. No parking areas, dwelling units, unit-lots, or permissible uses may be located within the perimeter buffer. Access to the development may cross a portion of the buffer.
3. **Height** – 35' primary uses; 25' accessory uses
4. **Parking & Circulation** – Each single-family dwelling requires 2 parking spaces. Residential parking lots with more than 10 parking spaces but fewer than 25 parking spaces require 1 ADA van accessible parking space.
 - a. Parking can be either on the unit lots or on the parent lot. On the ARS plan, parking areas should be shown.
5. **Access** – Access to the ARS must be publically maintained (Delta Drive is a publically maintained right-of-way). Access within the ARS must be located completely on the parent lot, be paved, and meet emergency service access requirements.

Pre-Application Conference Final Report

6. **Lot Coverage** – There is no maximum lot coverage for the unit lots, maximum lot coverage applies to the parent lot. The maximum lot coverage is 50%.
7. **Vegetative Coverage** – There is a minimum vegetative cover requirement for the parent lot. In the D18 zoning district, 30% vegetative cover is required.
 - a. Shared open space is not required for an ARS in the D18 zoning district.
8. **Density** – Site measures 79,189 square feet (1.8 acres). At 18 units per acre, the site could accommodate up to 32 dwelling units.
 - a. **Density bonuses** – The commission may award a density bonus to an ARS for enhancements to the development. For the D18 zoning district, the total bonus shall not exceed 25%. Applicant should state in the project narrative if they are requesting density bonuses and how they meet the enhancement criteria.
9. **Lighting** – In the project narrative, the applicant should discuss if lighting will be installed.
10. **Noise** – Noise is not expected to be out of character with the D18 residential zoning district.
11. **Flood** – NA
12. **Hazard/Mass Wasting/Avalanche/Hillside Endorsement** – No Known
13. **Wetlands** – No Known
14. **Habitat** – (Eagle – remind applicant to check with Feds; Riparian, etc.) – No Known
15. **Plat or Covenant Restrictions** – No known
16. **Traffic** – Per CBJ 49.40.300 a traffic impact analysis is required for projects that are anticipated to generate more than 500 average daily trips (ADTs). A single-family dwelling generates 9.52 ADTs. The proposal of 14 lots for single-family dwellings would generate 133.28 ADTs. A TIA will not likely be required for this project.
17. **Homeowners Association** – The ARS requires that a HOA be formed. The HOA documents must be recorded with the final plat.

Building Division

18. **Building** - plans will be addressed in plan review
19. **Outstanding Permits** -

	Permit Application	Pstatus	Permit Type	Location	Permit Id	Purpose
1	BLD20130336	Issued	BMH	4090 DELTA DR	2000993	Place 10 manufactured homes on existing foundations

General Engineering/Public Works

20. **Engineering** –
 - a. **Easements:** Site plan shall include all easements for drainage, utility lines including plumbing lines, access, snow storage, trash (dumpster) storage, or any other shared use that requires crossing the property line.
 - b. **Agreements:** A maintenance and hold harmless (of CBJ) agreement will need to be drafted, signed, and recorded for all shared infrastructure for the development, e.g. driveway, water, sewer, etc.

Pre-Application Conference Final Report

21. **Drainage** – Submit a drainage plan indicating how drainage from the proposed subdivision will join an established drainage channel or channels. Easements must be provided on the plat for all established drainage ways or any proposed drainage ways that cross any current or future abutting property lines.

22. **Utilities** – (water, power, sewer, etc.) A master water meter shall be installed by the developer prior to any branches or services. The meter must be in an above ground heated space. Water and sewer sizing shall be determined by an Alaskan licensed civil or mechanical engineer.

Beyond the shared private main and master water meter, a minimum of 1" water service and 4" sewer service will need to be installed to the front property line of each newly created lot prior to the recording of the final plat. At the time of preliminary plat submittal, please submit a construction plan with for the new utilities. The plan needs to include pipe locations, sizing, and grades for sewer to indicate appropriate fall will be achieved. Existing water services not being utilized shall be decommissioned and removed back to the mainline. If utilizing existing services or branches please show their location, size, and material type on the plan.

If a new private water and/or sewer mains are to be installed within the ROW, the following permits will need to be obtained to provide utilities to the newly created lot:

- a. **CBJ right-of-way (ROW) permit**- Once the construction plan for the utilities is approved, CBJ will create the ROW permit. The permit will allow the tapping of the water and sewer mains, water and sewer service installation, and road restoration within the right-of-way. Inspection fees, refundable bond amount, and conditions will be determined after review of the proposed construction plan. The extension of the utilities within the property will require further permitting and fee assessments. This process is done separately from the subdivision and typically in conjunction with the building permit application.
- b. **CBJ Water and Sewer Utility permits** – The installation of the private water and sewer main lines, services, and the water meter within the private property will be covered by these utility permits.

Fire Marshal

23. **Fire Items/Access** –

List of required applications

Based upon the information submitted for pre-application review, the following list of applications must be submitted in order for the project to receive a thorough and speedy review.

1. ARS Preliminary Plan Approval Application
2. Major Subdivision Application (Required when the subdivision plat is submitted)
3. Development Permit Application

Additional Submittal Requirements

Submittal of additional information, given the specifics of the development proposal and site, are listed below. These items will be required in order for the application to be determined Counter Complete.

1. A copy of this pre-application conference report.

Pre-Application Conference Final Report

2. Preliminary Plat Checklist (Required when the subdivision plat is submitted)
3. Please see 49.15.940(b) for a description of the Required submissions with an ARS Preliminary Plan Approval:
 - a. Ownership
 - b. Preliminary Development Plan
 - c. Design
 - d. Open space, common facilities, and general landscaping
 - e. Request for density bonuses (if applicable)
 - f. Description of phased development (if applicable)
4. As built survey of existing foundations if you plan to utilize them.

Fee Estimates

The preliminary plan review fees listed below can be found in the CBJ code section 49.85.

Based upon the project plan submitted for pre-application review, staff has attempted to provide an accurate estimate for the permits and permit fees which will be triggered by your proposal.

1. ARS Review Fee
 - a. Preliminary Plan – \$400.00 plus \$80.00 per residential unit
 - b. Final Plan - \$300.00 plus \$60.00 per residential unit
 - c. Public notice sign fee \$50 plus \$100 refundable deposit
2. Major Subdivision Review Fee
 - a. Preliminary Plat - \$110 per lot
 - b. Final Plat - \$70 per lot
 - c. Public notice sign fee \$50 plus \$100 refundable deposit
3. ROW Permit (work within the ROW):
 - a. \$10 permit fee
 - b. Inspection fees - \$60 per inspection trip or hour, will be determined at time of construction plan review
 - c. Refundable bond – will be determined at time of construction plan review. Can be paid in the form of cash, check, surety, or conveyance.
 - d. Bond fee – dependent on type of bond payment.
1. Water Utility Permit (work within private property):
 - a. Water Connection charge – based on the line size at the location of the water meter as determined by an Alaskan licensed civil engineer.
2. Sewer Utility Permit (work within private property):
 - a. Sewer Connection charge – based on the number of drainage fixture units and shall be supplied in the civil construction plans as determined by an Alaskan licensed civil engineer.

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Pre-Application Conference Final Report

- b. \$60.00 per inspection or trip, will be determined at time of construction plan review.

For informational handouts with submittal requirements for development applications, please visit our website at www.juneau.org/cdd.

Submit your Completed Application

You must submit your application(s) in person with payment made to:

City & Borough of Juneau, Permit Center
230 South Franklin Street
Fourth Floor Marine View Center
Juneau, AK 99801

Phone: (907) 586-0715
Fax: (907) 586-4529
Web: www.juneau.org/cdd



PRELIMINARY PLAT CHECK LIST

Name of Proposed Subdivision: Delta Drive Subdivision

The following items must be included with the initial submittal of a Preliminary Plat:

- | | |
|--|---|
| ☒ Application, filled out completely | ☐ Application fee (see fee schedule) |
| ☒ Project Narrative | ☐ Five (5) – 24" by 36" Copies |
| ☒ Pre-application Conference Report | ☒ Lot Closure Report |
| ☒ Disclosure of all known environmental hazards and any proposed mitigation measures recommended in the applicable environmental document. | |
| ☐ Preliminary Plat Checklist: I have reviewed the checklist and all submittals for completeness and accuracy. | |

Applicant or Surveyor - Signature

Date

Applicant or Surveyor - Print Name

GENERAL REQUIREMENTS

- ☐ The preliminary plat shall be prepared by a professional land surveyor, registered in the State of Alaska
- ☐ The preliminary plat shall be submitted on 22 by 34 inch sheets. The director of engineering and public works may approve alternate sheet sizes
- ☐ The preliminary plat shall be drawn with black ink to a scale of one-inch to 100 feet or less, or other suitable scale approved by the director of engineering and public works
- ☐ The preliminary plat shall be oriented with north toward the top of the sheet.
- ☐ A vicinity map shall be located in the upper right-hand corner of the sheet
- ☐ The vicinity map shall be oriented in the same direction as the plat
- ☐ A suitable north arrow shall be shown for the plat and vicinity map
- ☐ All line work and lettering must be of professional quality, and all line widths and lettering sizes must be of such size that all information can be clearly shown without overlap or confusion

GRAPHIC REQUIREMENTS - A preliminary plat shall contain the following information:

Title block - An enclosed title block in the lower right-hand corner containing the following information:

- ☐ The proposed name of the subdivision
- ☐ The legal description of the parcel to be subdivided including U.S. Survey, U.S. Mineral Survey, A.T.S. number or section, township, and range number, as applicable
- ☐ "City and Borough of Juneau, Alaska"
- ☐ "State Recorder's Office at Juneau"
- ☐ The date the preliminary plat was prepared and revised
- ☐ The horizontal scale
- ☐ The name and address of the owner of record
- ☐ The name, address, and telephone number of the surveyor preparing the preliminary plat

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Preliminary Plat Checklist

Updated 1/2018

Page 2 of 5

Lot, block, and street information:

- ☒ The area of each lot
- ☒ The dimensions in feet and hundredths of a foot
- ☒ An identifying number and letter for lots and blocks
- ☒ Lots numbered consecutively, commencing with the number "1," with no omissions or duplications
- ☒ If the remainder of an original parcel being subdivided is relatively large, it shall be designated as a "tract" with an identifying number
- ☒ All parcels of land intended to be dedicated for public use or reserved for the use of all of the property owners in the proposed subdivision shall be shown as lots, and consecutively numbered. The purpose and any conditions or limitations on the use of the parcel shall be noted on the plat
- ☒ Abutting properties shall be shown with dashed lines, numbers, and/or letters
- ☒ For resubdivisions or public way vacations, the lines and legal description of the previous lots shall be shown with light dashed lines, numbers, and/or letters, or by a separate plat on the same sheet showing the previous lot lines
- ☒ The minimum data shown for each curve shall be as follows:
 - ☐ Length
 - ☐ Central angle
 - ☐ Radius
 - ☐ Bearing and distance of long chord
- ☐ Setbacks shall be shown on all corner lots and any lots with multiple frontage. Setbacks shall be shown on typical lots

Boundary lines:

- ☒ All boundary lines of the subdivision with bearings and distances described
- ☒ All retraced boundary lines shall show record and measured bearings and distances where they differ. Record dimension information shall be shown within parentheses and include a record source identification
- ☒ The exterior boundary lines of the subdivision shall be a solid black opaque line that is of a width that distinguishes it from all other property lines shown on the plat
- ☐ If phasing is proposed, then the boundaries and number of each phase, sequential lot numbering, and a subdivision name consistent with previous phases shall be shown

Monumentation:

- ☒ The monuments used to establish the basis of bearing
- ☒ Each monument found or set shall be identified on the plat by a symbol
- ☒ A complete description of the monument, including type and all information printed on the cap. A typical drawing shall be shown for each type of monument cap set
- ☒ A legend showing the symbols for all the types of monuments
- ☒ The identification, description location, elevation, and datum of the benchmark used to establish vertical control

Site access, circulation, and utilities:

- ☒ The widths and names of existing rights-of-way within the subdivision and within 100 feet of the subdivision boundary
- ☐ Proposed rights-of-way, including their widths and proposed names
- ☐ The grades of existing and proposed streets within these rights-of-way
- ☐ The width, ownership, use, and record reference of all proposed and existing easements within the subdivision and within 100 feet of the subdivision boundary
- ☐ The width, ownership, and use of all proposed easements

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Preliminary Plat Checklist

Updated 1/2018

Page 3 of 5

- ☒ All proposed and existing easements shall have sufficient dimensions shown to determine their location on the ground
- ☐ Existing trails or pathways within the subdivision and within 100 feet of the subdivision boundary, including the width of any associated rights-of way or easements
- ☐ Proposed trails or pathways and widths of their rights-of-way
- ☐ If the plat submitted covers only a part of the tract under the control of the applicant, a sketch plat of the prospective street system of the unplatted part shall be submitted
- ☒ The location of any existing or proposed driveways/curb cuts that access or are proposed to access any existing or proposed street

Topographic Information:

- ☒ For slopes of less than five percent, show one foot contour lines and include spot elevations at all breaks in grade, along all drainage channels or swales, and at selected points not more than 100 feet apart in all directions
- ☐ For slopes between five percent and ten percent, show two foot contour lines
- ☐ For slopes greater than ten percent, show five foot contour lines
- ☒ Every fifth elevation contour shall be distinctive and clearly labeled
- ☒ Dashed lines shall represent existing contours
- ☒ Mapping shall include any significant features which can materially affect the design of the subdivision, including, but not limited to, structures, fences, walls, and utility poles
- ☒ If irregular slopes or special features are present, additional contour information may be required by the director of engineering and public works for planning or construction purposes. Additional required information may include projecting the topography of the site after grading has taken place, showing such items as:
 - ☐ Pad elevations and drainage patterns for each lot
 - ☐ Tops and toes of all manufactured slopes, including daylight lines
 - ☐ Existing and proposed retaining wall locations and heights
- ☐ For subdivisions located in hillside areas with slopes greater than eighteen percent, additional requirements apply in accordance with CBJ 49.70, Article II

Sewer and water:

- ☒ Existing sewer and water mains within the tract with pipe sizes and grades
- ☒ A draft plan for proposed water and sewer lines showing the size, approximate slope, and connection points with elevations for the purpose of determining the feasibility of construction

Multisheet plats:

- ☐ When a plat requires more than one sheet, exclusive of a certificate sheet, an index sheet shall be included. When a plat requires more than three sheets, a cover sheet shall also be included, showing the subdivision title, a key map, and all certificates. Each additional sheet shall include the following data:
 - ☐ North arrow
 - ☐ Legend
 - ☐ Surveyor's seal and signature
 - ☐ Title block
 - ☐ Sheet _____ of _____
 - ☐ Scale
 - ☐ All plat notes
 - ☐ Vicinity map

N/A

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

Preliminary Plat Checklist

Updated 1/2018

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ADDITIONAL MAPPING OR REPORTS- At the pre-application meeting, it will be determined if any of the following additional mapping or reports are required to be submitted with the preliminary plat. If required, the following additional mapping or reports shall be submitted:

Hazard and Special Habitat Areas:

- ☐ Any portion of a special flood hazard area, landslide or avalanche area, habitat area as defined by CBJ 49.70.310, or watersheds, either existing at the proposed subdivision site or shown on the overlay maps, adopted pursuant to this title, to exist at the proposed subdivision site, must be depicted on the preliminary plat
- ☐ The boundaries of any wetland areas must be depicted on the preliminary plat. Boundaries must be determined by a person qualified to perform wetland delineations *N/A*

Soils report:

- ☐ A soils report prepared by an engineer licensed by the State of Alaska shall be required if the proposed subdivision is located farther from the existing public sewer system than specified in CBJ 49.35, and the applicant chooses to provide on-lot waste disposal rather than to connect to the public system. A soils report shall include the following:
 - ☐ Certification that the proposed lots are large enough and have soil of sufficient permeability to permit the construction of approved waste treatment systems for on-lot waste disposal
 - ☐ The location and size of drain fields for each lot
 - ☐ The locations and logs of test borings, percolation test results, and a hydrological evaluation of on-site sewage disposal
 - ☐ If the soils report indicates that the soils found on the site are not of sufficient permeability or the lots are not large enough to permit the construction of systems for on-lot waste disposal, the size of the proposed lots must be increased or alternate methods for waste disposal proposed
 - ☐ The soils report shall describe the nature of the subsurface soils and any soil conditions that would affect the design of the proposed development. The soils report shall state whether the proposed subdivision plan is feasible and provide general solutions for all known geotechnical conditions or problems

Drainage report:

- ☐ A preliminary report specifying the method by which the applicant proposes to manage surface and subsurface drainage for the subdivision and the effect of such method on adjacent areas. Unlike the drainage plan required by CBJ 49.35.510, the preliminary drainage report does not need to be prepared by a licensed engineer. The report must address the following:
 - ☐ A calculation of the increase in stormwater runoff resulting from the proposed development as well as the runoff from all drainage areas associated with the site. Runoff calculations shall be based on a fully-developed subdivision and a 25-year storm event
 - ☐ How drainage from the proposed subdivision will join an established drainage channel or channels, unless the director of engineering and public works approves use of an alternative drainage way
 - ☐ An evaluation of existing drainage ways and structures located between the subdivision and the receiving water body, and verification that the existing drainage ways can accommodate the increased runoff. If the increased runoff cannot be handled, the plan must propose solutions to the problem
 - ☐ All required improvements, on or off site, that are shown on the construction plans in accordance with CBJ 49.35, Article V, and that will be constructed as part of the subdivision

Water:

- ☐ For subdivisions of five or more lots, including major subdivisions, the following shall be included, where applicable, in accordance with CBJ 49.15.412:
 - ☐ If a proposed subdivision is located at greater distance from the existing public water system than specified in CBJ 49.35, Article III, and the applicant chooses not to connect to the public system, a statement that the applicant will provide a community water system or that individual wells will be used

Preliminary Plat Checklist

Updated 1/2018

Page 5 of 5

- ☐ A report by a registered engineer or geologist that clearly supports the legal and physical availability of adequate water. Methods for proof of water availability and the standards for quantity are listed in CBJ 49.35, Article III
- ☐ A copy of the State application for a permit to appropriate water in the quantity required to meet the subdivisions demands
- ☐ This does not apply to remote subdivisions unless: the subdivider of the remote subdivision chooses to provide potable water, a public water system is available and the subdivision falls within the criteria outlined in CBJ 49.35.310(a), or the subdivision has four or fewer lots.
- ☐ The director for minor subdivisions, and the planning commission for major subdivisions, may, for good cause, temporarily waive the requirement to provide a water report and proof of water, and condition the approval of the preliminary plat upon the provision of both documents as part of the final plat application and approval process.

Erosion control:

- ☐ A report explaining the method by which the applicant proposes to control erosion and manage runoff, and potential impacts to adjacent properties or water bodies. The report shall include a plan for preservation of ground cover in areas where runoff and resulting erosion need to be minimized.

Traffic study:

- ☐ A traffic impact analysis may be required with the preliminary plat in accordance with CBJ 49.40.300.

Shadow plats:

- ☒ For subdivisions of five or more lots in transition areas, a shadow plat shall be submitted according to CBJ 49.70.710. The shadow plat shall consist of a sketch superimposed on the proposed subdivision layout. This sketch shall reflect any future resubdivision of the parcels into smaller lots consistent with the higher density and the lot size allowed under the transition zoning.

GENERAL NOTES

- ALL BEARINGS SHOWN ARE TRUE BEARINGS AS ORIENTED TO THE BASIS OF BEARING AND DISTANCES SHOWN ARE REDUCED TO HORIZONTAL FIELD DISTANCES.
- THE ERROR OF CLOSURE OF THIS SURVEY DOES NOT EXCEED 1:10,000.
- BASIS OF BEARING**
THE BASIS OF BEARING FOR THIS PLAT IS THE BEARING OF S 0° 01' 00" W, AS SHOWN ON PLAT No. 73-17, DATED OCTOBER 29, 1973, BETWEEN THE RECOVERED MONUMENTS, AS SHOWN ON THIS PLAT.
- WHERE RECORD SURVEY COURSES (BEARINGS AND/OR DISTANCES) DIFFER FROM THAT OF ACTUAL FIELD MEASURED AND/OR COMPUTED SURVEY COURSES, THE RECORD BEARING AND/OR DISTANCES IS SHOWN WITHIN PARENTHESIS AND REFERENCED TO A RECORDED PLAT (R#).
- THE PRELIMINARY FIELD SURVEYING WAS PERFORMED ON MAY 26-27, 2020, UTILIZING A TRIMBLE S7 ROBOTICS TOTAL STATION WITH STANDARD LASER RANGING MEASUREMENTS.
- RECORD INFORMATION**
THE RECORD INFORMATION USED FOR THIS SUBDIVISION IS DERIVED FROM THE OFFICIAL PLATS: PLAT No. 73-17, JUNEAU RECORDING DISTRICT, DATED OCTOBER 29, 1973 (R1), PLAT No. 92-18, JUNEAU RECORDING DISTRICT, DATED APRIL 28, 1992 (R2);
- ALL DISTANCES ARE MEASURED IN U.S. SURVEY FEET, AND HAVE BEEN REDUCED TO THEIR HORIZONTAL EQUIVALENTS.
- DOMESTIC WATER AND SANITARY SEWER DISPOSAL PROVIDED BY THE CITY AND BOROUGH OF JUNEAU PUBLIC UTILITIES.
- THE LOTS CREATED THROUGH THIS SUBDIVISION ARE AN ALTERNATIVE RESIDENTIAL SUBDIVISION. AT TIME OF PLAT RECORDING DEVELOPMENT OF LOTS, INCLUDING FURTHER SUBDIVISION OR USE, IS SUBJECT TO CBJ 49.15 ARTICLE IX. SEE CITY AND BOROUGH OF JUNEAU LAND USE CODE FOR CURRENT REGULATIONS.
- THERE SHALL BE NO DISTURBANCE OR DEVELOPMENT WITHIN THE PERIMETER BUFFER SHOWN ON THIS PLAT, AS REQUIRED BY CBJ 49.15.920(j).
- AT TIME OF RECORDING, LOTS 2 THROUGH 11 AND 13 THROUGH 15 ARE LIMITED TO ONE SINGLE FAMILY DWELLING. LOT 12 MAY BE PERMITTED ONE SINGLE FAMILY DWELLING AND ONE ACCESSORY APARTMENT. SEE CBJ 49.15 ARTICLE IX FOR CURRENT REGULATIONS.

OWNERSHIP CERTIFICATE

BICKNELL, INC. HEREBY CERTIFIES THAT BICKNELL, INC. IS THE OWNER OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT IT HEREBY ADOPTS THIS PLAT OF SUBDIVISION WITH ITS FREE CONSENT, AND DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS AND OTHER OPEN SPACES TO PUBLIC OR PRIVATE USE AS NOTED:

OWNER _____ DATE: _____ 2020
ROSCOE V. BICKNELL, IV
BICKNELL, INC.

NOTARY ACKNOWLEDGMENT

UNITED STATES OF AMERICA }
STATE OF ALASKA } SS

THIS IS TO CERTIFY THAT ON THIS _____ DAY OF _____, 2020, BEFORE ME, THE UNDERSIGNED A NOTARY PUBLIC IN AND FOR THE STATE OF ALASKA, DULY COMMISSIONED AND SWORN, PERSONALLY APPEARED _____ TO ME KNOWN TO BE THE PERSONS DESCRIBED IN AND WHO EXECUTED THE ABOVE AND FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT THEY SIGNED AND SEALED THE SAME FREELY AND VOLUNTARILY FOR THE USES AND PURPOSES THEREIN MENTIONED. WITNESS MY HAND AND OFFICIAL SEAL THE DAY AND YEAR IN THIS CERTIFICATE FIRST ABOVE WRITTEN.

NOTARY PUBLIC FOR ALASKA

MY COMMISSION EXPIRES: _____

PLANNING COMMISSION PLAT APPROVAL

I HEREBY CERTIFY THAT THE SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE SUBDIVISION REGULATIONS OF THE CITY AND BOROUGH OF JUNEAU, ALASKA AND THAT SAID PLAT HAS BEEN APPROVED BY THE PLANNING COMMISSION BY PLAT RESOLUTION NO. _____, DATED _____, 2020, AND THAT THE PLAT SHOWN HEREON HAS BEEN APPROVED FOR RECORDING IN THE JUNEAU RECORDING DISTRICT, STATE RECORDERS OFFICE AT ANCHORAGE.

CHAIRMAN OF THE PLANNING COMMISSION
CITY AND BOROUGH OF JUNEAU

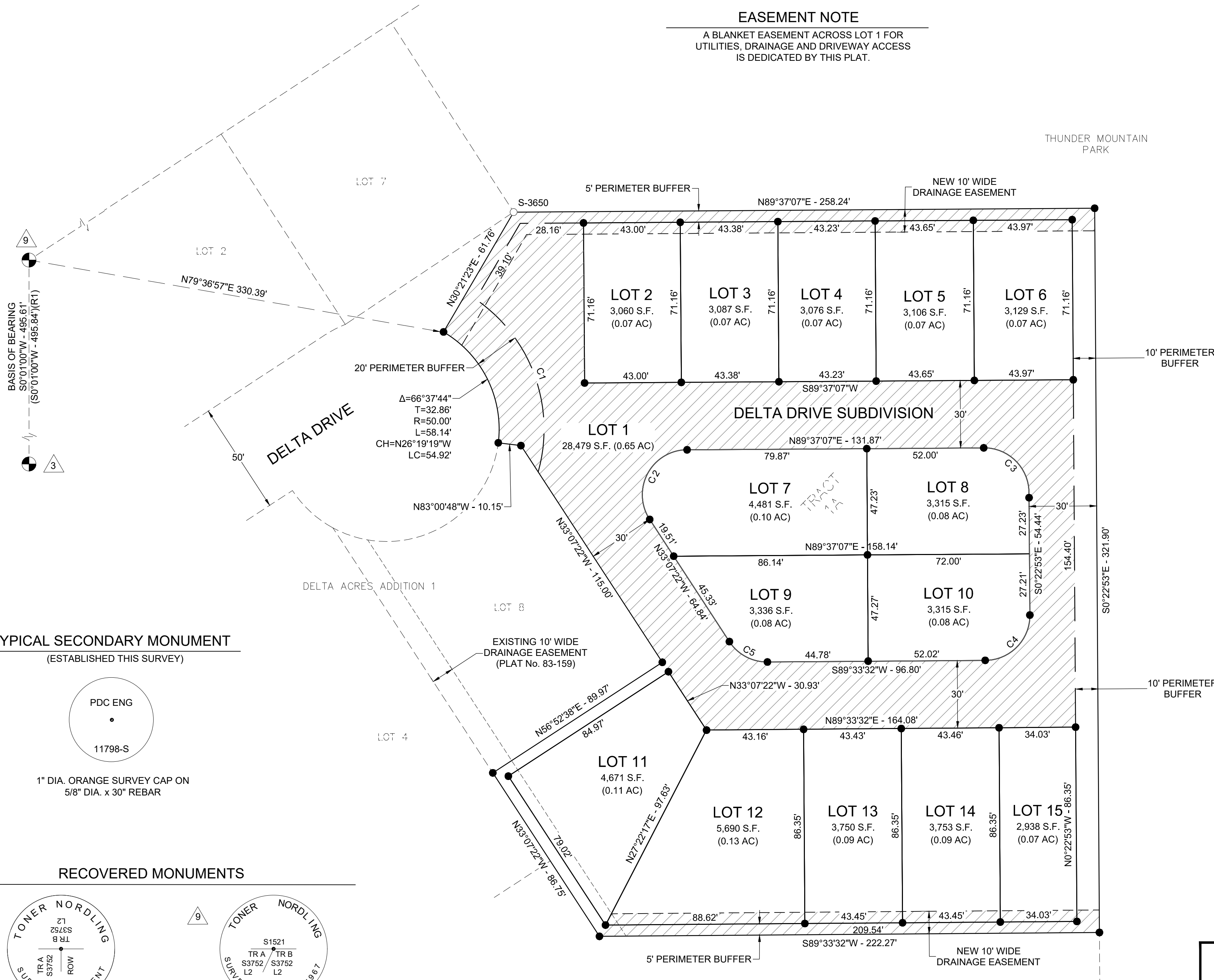
DATED _____, 2020

ATTEST:

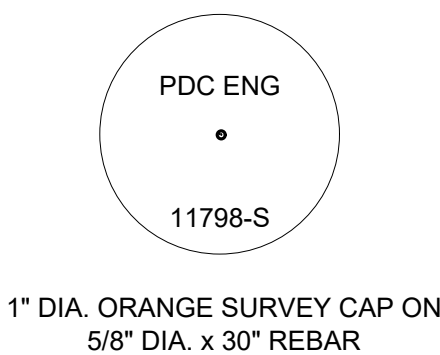
MUNICIPAL CLERK
CITY AND BOROUGH OF JUNEAU

EASEMENT NOTE

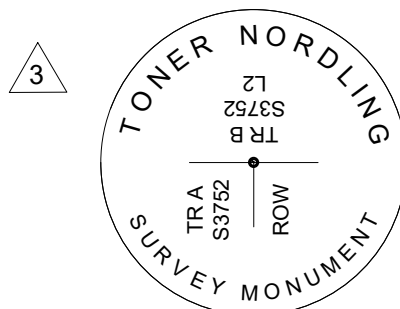
A BLANKET EASEMENT ACROSS LOT 1 FOR UTILITIES, DRAINAGE AND DRIVEWAY ACCESS IS DEDICATED BY THIS PLAT.



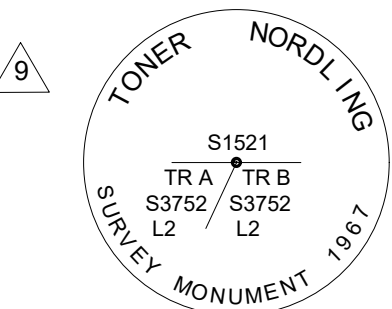
TYPICAL SECONDARY MONUMENT
(ESTABLISHED THIS SURVEY)



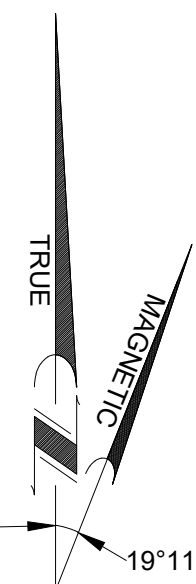
RECOVERED MONUMENTS



3" BRASS CAP PRIMARY
GOOD CONDITION
1.5' BELOW GRADE

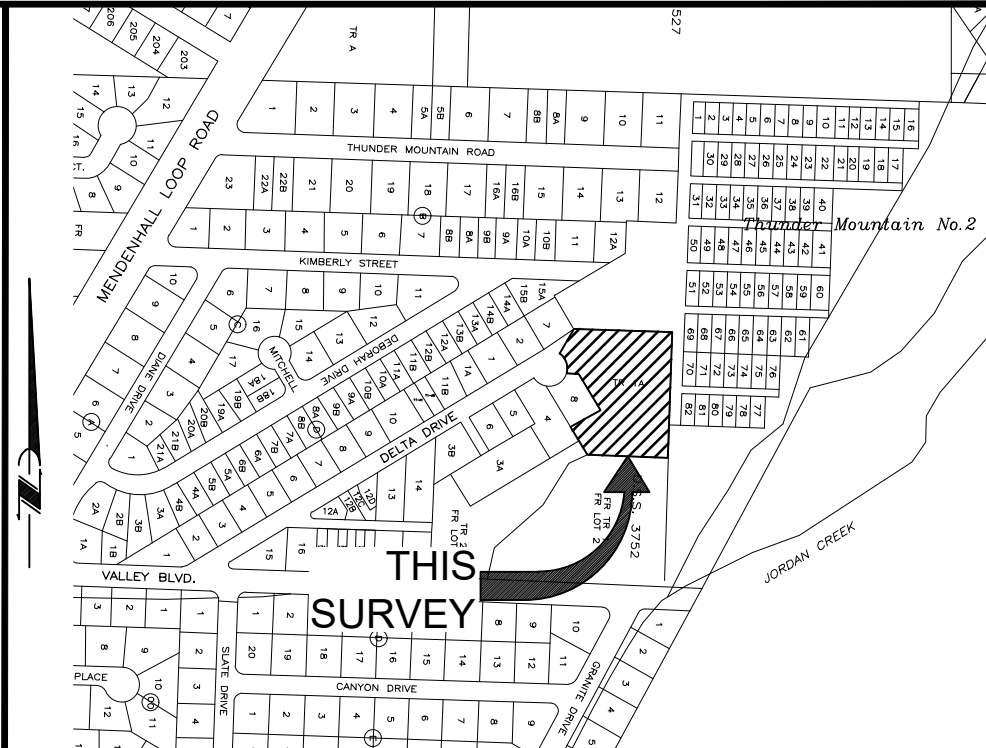
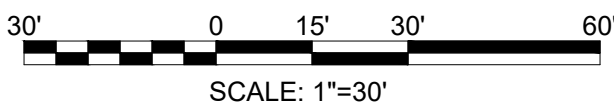


3" BRASS CAP PRIMARY
GOOD CONDITION
FLUSH WITH GRADE



SOURCE: N.O.A.A.
MAGNETIC DECLINATION 19°11'E
NOVEMBER 14, 2017 CHANGING BY
0°17' W/YEAR

CURVE TABLE					
CURVE #	LENGTH	DELTA	RADIUS	CHORD BEARING	CORD DISTANCE
C1	87.15'	71° 20' 01"	70.00'	N19° 52' 32"W	81.63'
C2	42.84'	122° 44' 29"	20.00'	S28° 14' 53"W	35.11'
C3	31.42'	90° 00' 00"	20.00'	N45° 22' 53"W	28.28'
C4	31.40'	89° 56' 25"	20.00'	N44° 35' 20"E	28.27'
C5	20.01'	57° 19' 06"	20.00'	S61° 46' 55"E	19.18'



VICINITY MAP

SOURCE: CBJ PROPERTY ATLAS
SCALE: 1"= 500'

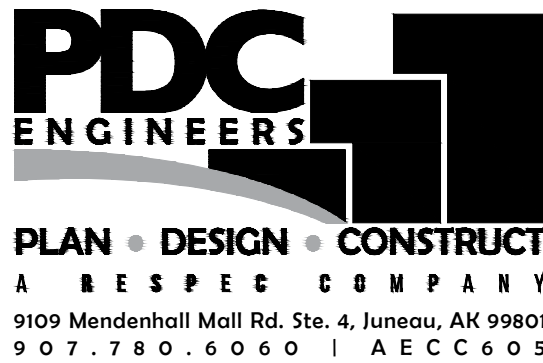
LEGEND

- PRIMARY MONUMENT (RECOVERED)
- SECONDARY MONUMENT (RECOVERED)
- SECONDARY MONUMENT (ESTABLISHED)
- SURVEYED LINE
- UNSURVEYED LINE
- EASEMENT LINE
- NEW EASEMENT LINE
- PLAT No. 73-17, JRD
- PLAT No. 92-18, JRD
- ACCESS, UTILITY & DRAINAGE EASEMENT
- PERIMETER BUFFER

SURVEYOR'S CERTIFICATE

I, CRAIG O. RANSON, IN MY CAPACITY AS A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF ALASKA, CERTIFY THAT THIS PLAT REPRESENTS THE SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE ACCURACY OF THE SURVEY IS WITHIN THE LIMITS REQUIRED BY TITLE 49 OF THE CODE OF THE CITY AND BOROUGH OF JUNEAU, THAT ALL DIMENSIONS AND RELATIVE BEARINGS ARE CORRECT AND THAT MONUMENTS ARE SET IN PLACE AND NOTED UPON THIS PLAT AS PRESENTED.

DATE: 12/04/20



A PLAT OF
DELTA DRIVE SUBDIVISION
A SUBDIVISION OF
THUNDER MOUNTAIN PARK
TRACT 1A

WITHIN U.S. SURVEY NO. 3752
WITHIN CITY AND BOROUGH OF JUNEAU, ALASKA
JUNEAU RECORDING DISTRICT

STATE RECORDER'S OFFICE AT ANCHORAGE

OWNER: BICKNELL, INC.
P.O. BOX 33517
JUNEAU, AK 99803

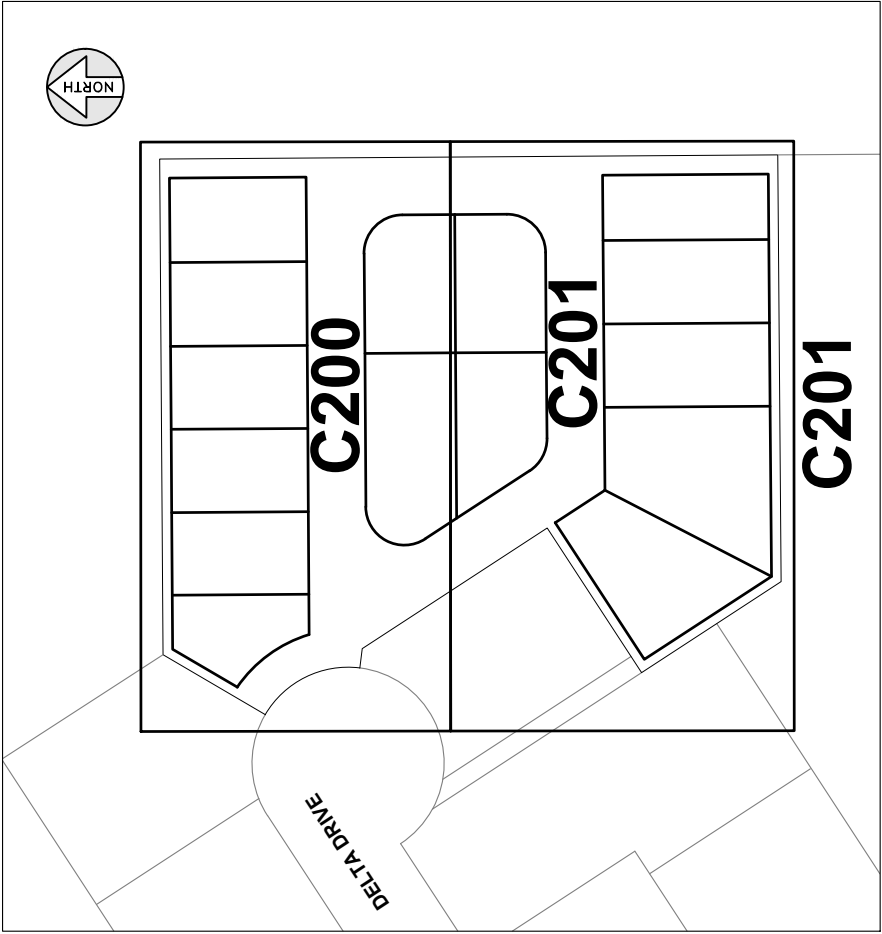
SURVEYOR: PDC ENGINEERS
9109 MENDENHALL MALL ROAD SUITE 4
JUNEAU, ALASKA 99801
(907) 780-6060

DATE: December 04, 2020 SCALE: 1"=30' SHEET 1 OF 1 PDC PROJ. No. 20098JN

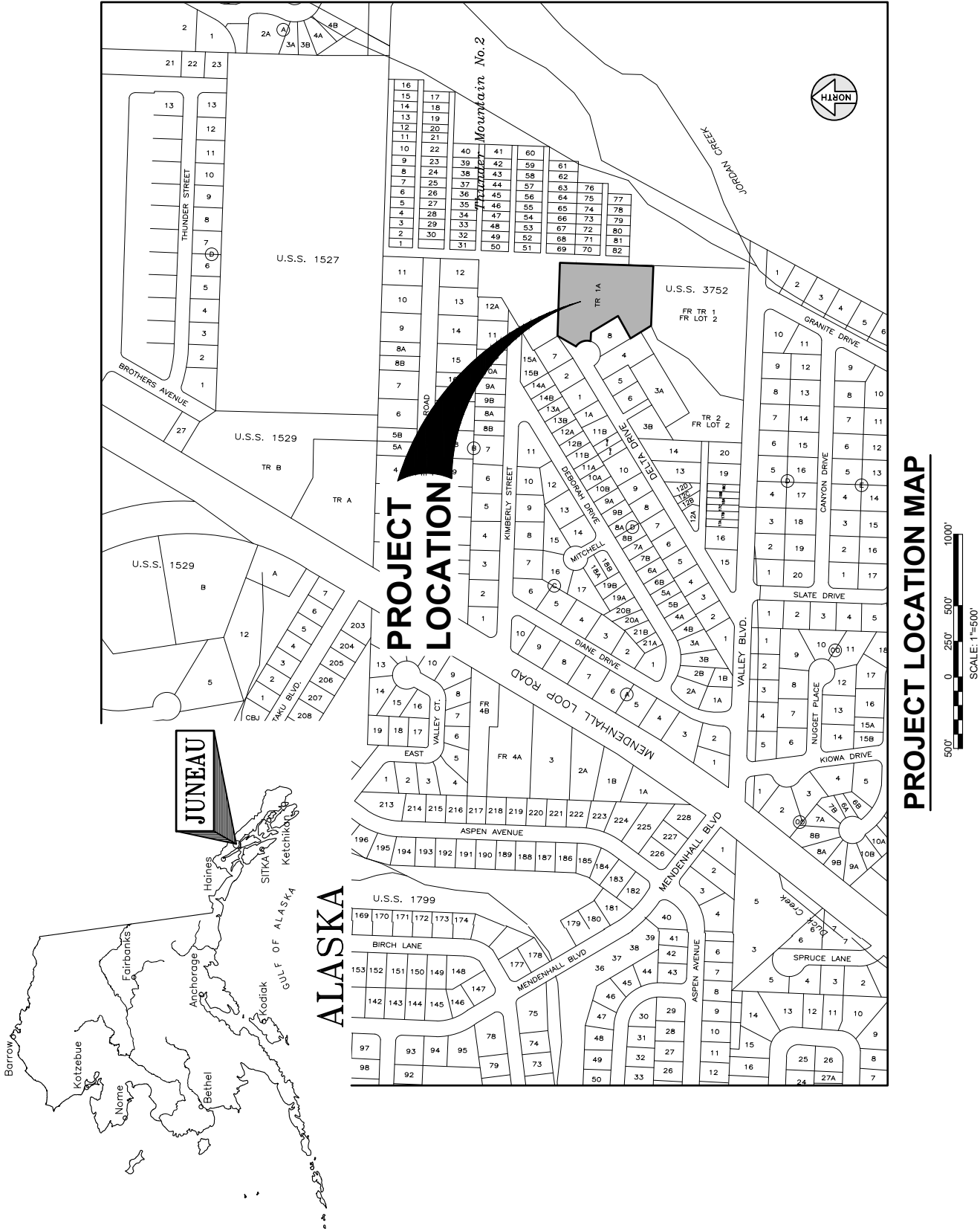
DELTA DRIVE SUBDIVISION CONSTRUCTION IMPROVEMENT PLAN

JUNEAU, ALASKA

SHEET INDEX	
SHEET No.	DESCRIPTION
C001	COVER SHEET
C002	GENERAL NOTES, ABBREVIATIONS AND SYMBOLS
C003	SUMMARY TABLES
C004	EXISTING SITE CONDITIONS
C100	TYPICAL SECTIONS
C101	CONSTRUCTION DETAILS
C102	CONSTRUCTION DETAILS
C200	OVERALL SITE PLAN
C201	SITE & UTILITY PLAN
C202	SITE & UTILITY PLAN
C203	GRADING PLAN
C204	WATER METER ENCLOSURE DETAILS
C205	WATER METER ENCLOSURE DETAILS
C206	WATER METER ENCLOSURE DETAILS
C207	WATER METER ENCLOSURE DETAILS
C300	EROSION & SEDIMENT CONTROL PLAN
C301	EROSION & SEDIMENT CONTROL DETAILS



SHEET KEY MAP
N.T.S.

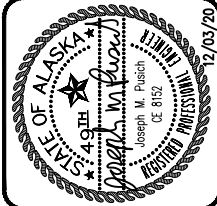


PROJECT LOCATION MAP

DESIGN MSM
DRAWN MSM
CHECK JMP
APPROVED JMP
FILE:

No.	DATE	REVISION	BY	APPROVED

DELTA DRIVE
SUBDIVISION
JUNEAU, AK



COVER SHEET

DATE: Dec 03, 2020
PDC No. 20098JUN
SHEET
C001

GENERAL CONSTRUCTION NOTES

1. CBJ ENGINEERING STANDARD DETAILS BOOK FOR CIVIL ENGINEERING PROJECTS AND SUBDIVISION IMPROVEMENTS DATED AUGUST, 2011 AND CBJ ENGINEERING STANDARD SPECIFICATIONS DATED DECEMBER, 2003 ARE MADE A PART OF THIS CONTRACT, WITH CURRENT REVISIONS AS APPLICABLE.
2. LARGE BOULDERS, HARDPAN, STUMPS, LOGS, ORGANICS AND GROUND WATER MAY BE ENCOUNTERED AT VARIOUS DEPTHS DURING EXCAVATION OPERATIONS. THESE MATERIALS SHALL BE DISPOSED OF AS REQUIRED BY THE ENGINEER.
3. GRADES AND ALIGNMENTS SHOWN ON THESE PLANS ARE SUBJECT TO MINOR REVISIONS AS APPROVED BY THE ENGINEER.
4. LOCATION OF WATER SYSTEM IMPROVEMENTS, SANITARY SEWER MANHOLES, STORM DRAIN STRUCTURES, PIPING AND PIPE LENGTHS ARE SUBJECT TO MINOR REVISIONS AS APPROVED BY THE ENGINEER.
5. LOCATIONS OF EXISTING UNDERGROUND SEWER, WATER, TELEPHONE, CABLE TELEVISION, AND POWER UTILITIES SHOWN ON THESE PLANS WERE DERIVED FROM CBJ AS-BUILTS OR FIELD LOCATES. ACTUAL LOCATIONS MAY VARY FROM THOSE SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING, PROTECTING AND MAINTAINING THE UTILITIES THROUGHOUT THE CONSTRUCTION OF THIS PROJECT. ANY DAMAGE RESULTING TO THESE UNDERGROUND UTILITIES DURING CONSTRUCTION SHALL BE PAID FOR BY THE CONTRACTOR AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. CALL "DIAL BEFORE YOU DIG" @ 586-1333 FOR UNDERGROUND UTILITY LOCATES AND 811 ALASKA DIG LINE FOR ACS AND GCI PRIOR TO ANY EXCAVATION ACTIVITIES.
6. CONTRACTOR SHALL ASSURE GARBAGE PICKUP, DAILY MAIL SERVICE, FUEL AND SERVICE DELIVERIES WILL BE UNINTERRUPTED TO ALL RESIDENTS AFFECTED BY THIS PROJECT.
7. PROPERTY LINE LOCATIONS USED IN THESE PLANS WERE DERIVED FROM RECORD PLATS AND DO NOT REPRESENT A SUBDIVISION BOUNDARY SURVEY.
8. ALL SIGN INSTALLATIONS OR RELOCATIONS SHALL BE PERFORMED ACCORDING TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (M.U.T.C.D.) WITH THE ALASKA SUPPLEMENT.
9. ALL ITEMS DESIGNATED TO BE REMOVED SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL SITE, EXCEPT AS NOTED IN THE CONTRACT DOCUMENTS.
10. PROVIDE KNOCKOUTS IN PRECAST STORM DRAIN STRUCTURES FOR ALL PIPES SHOWN ON THE PLANS.
10. ONLY HORIZONTAL ELBOW FITTINGS (BENDS) ARE SHOWN ON THE PLANS. ADDITIONAL FITTINGS WILL BE REQUIRED FOR VERTICAL DEFLECTIONS NEAR CONNECTION TO EXISTING PIPES, AND AT OTHER LOCATIONS REQUIRING GRADE CHANGES TO AVOID CONFLICTS.
11. THE CONTRACTOR SHALL NOT STORE MATERIALS OR EQUIPMENT OR OPERATE EQUIPMENT WITH ITS TRACKS OR WHEELS PLACED ON PRIVATE PROPERTY WITHOUT THE WRITTEN APPROVAL OF THE PROPERTY OWNER.
11. THE CONTRACTOR SHALL NOTIFY CBJ WATER UTILITIES OPERATOR LONI VANKIRK (723-4975) OF PROPOSED WATER SERVICE INTERRUPTION AND SUBMIT THE "WATER SYSTEM SPECIAL USE PERMIT" (COSIGNED BY THE ENGINEER) AT LEAST 48-HOURS PRIOR TO SHUTDOWN OR FLUSHING OF MAINLINE WATER PIPE. NO WATER SERVICE INTERRUPTION MAY PROCEED UNTIL THIS APPROVAL IS OBTAINED.
12. CONTRACTOR SHALL REFERENCE ALL EXISTING PROPERTY CORNER MONUMENTS (I.E. BRASS CAP MONUMENTS, REBARS OR CHISELED X'S) PRIOR TO CONSTRUCTION THAT WILL BE DISTURBED DURING HIS WORK, AND REMONUMENT AFTER CONSTRUCTION OPERATIONS. ALL WORK SHALL BE DONE BY, OR UNDER THE DIRECTION OF, AN ALASKA REGISTERED LAND SURVEYOR. ALL EXISTING PROPERTY CORNERS ARE NOT NECESSARILY SHOWN ON THE PLANS.
13. THE PLAN DRAWINGS DO NOT NECESSARILY SHOW ALL TREES AND SHRUBS THAT MAY BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES. NO TREES, SHRUBS OR LANDSCAPING ARE TO BE REMOVED OR DAMAGED, UNLESS SHOWN ON THE DRAWINGS OR DIRECTED BY THE ENGINEER.
14. "JUMPING JACK", OR SIMILAR TYPE COMPACTORS SHALL BE USED FOR COMPACTION WITHIN 18-INCHES OF THE OUTSIDE SURFACE OF ALL WATER VALVE BOXES, CATCH BASINS AND MANHOLES.
15. THE USE OF GROUT AND QUICKSET CEMENT PRODUCTS WITH ADJUSTING RINGS, BRICKS, WOOD, STONES AND OTHER SIMILAR GRADE ADJUSTMENT DEVICES TO SUPPORT CATCH BASIN FRAMES OVER CATCH BASINS AND MANHOLES WILL NOT BE PERMITTED ON THIS PROJECT. SEE CBJ STANDARD SPECIFICATIONS, SECTION 02502 - STORM SEWER MANHOLES, INLETS AND CATCH BASINS AND THE DRAWINGS FOR CATCH BASIN FRAME SUPPORT REQUIREMENTS. SANITARY SEWER MANHOLES SHALL BE ADJUSTED PER CBJ STANDARD SPECIFICATIONS 02402 - SANITARY SEWER MANHOLES AND CLEANOUTS.
16. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ENGINEER APPROVED EROSION CONTROL DEVICES DURING CONSTRUCTION PER CBJ STANDARD SPECIFICATIONS SECTION 01570 REQUIREMENTS.
17. ALL WORK FOR THESE PLANS SHALL BE CONDUCTED IN STRICT ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL LAWS AND STANDARDS.

ABBREVIATIONS

- | | |
|--------|---------------------------------------|
| AC | ASBESTOS CEMENT |
| ACS | ALASKA COMMUNICATIONS SYSTEMS |
| AEL&P | ALASKA ELECTRIC LIGHT & POWER |
| APPROX | APPROXIMATE |
| AST | ABOVEGROUND STORAGE TANK |
| BC | BACK OF CURB |
| BLVD | BOULEVARD |
| BOP | BEGINNING OF PROJECT |
| CB | CATCH BASIN |
| CBJ | CITY & BOROUGH OF JUNEAU |
| CHB | CHORD BEARING |
| CHL | CHORD LENGTH |
| C/L | CENTERLINE |
| CI | CAST IRON |
| CLR | CLEAR |
| CMP | CORRUGATED METAL PIPE |
| CONC | CONCRETE |
| CONT | CONTINUOUS |
| CPP | CORRUGATED POLYETHYLENE PIPE |
| CTE | CONNECT TO EXISTING |
| DI | DUCTILE IRON |
| DIP | DUCTILE IRON PIPE |
| DIA | DIAMETER |
| E | EASTING |
| EG | EXISTING GRADE |
| EL | ELEVATION |
| EOP | END OF PROJECT |
| EP | EDGE OF PAVEMENT |
| EXIST | EXISTING |
| EXP | EXPANSION |
| FG | FINISH GRADE |
| FH | FIRE HYDRANT |
| FL | FLOW LINE |
| GCI | GENERAL COMMUNICATION INC. |
| GV | GATE VALVE |
| HDPE | HIGH DENSITY POLYETHYLENE |
| HP | HIGH PRESSURE |
| IE | INVERT ELEVATION |
| L | LENGTH |
| LP | LOW POINT |
| LT | LEFT |
| MAX | MAXIMUM |
| MIN | MINIMUM |
| MJ | MECHANICAL JOINT |
| MTE | MATCH TO EXISTING |
| N | NORTHING |
| N/A | NOT APPLICABLE |
| NFS | NON-FROST SUSCEPTIBLE |
| NTS | NOT TO SCALE |
| NVC | NO VERTICAL CURVE |
| OC | ON CENTER |
| PC | POINT OF CURVATURE |
| PERF | PERFORATED |
| PI | POINT OF INTERSECTION |
| P/L | PROPERTY LINE |
| POC | POINT ON CURVE |
| POL | POINT ON LINE |
| PP | POWER POLE |
| PT | POINT OF TANGENCY |
| PVC | POLYVINYL CHLORIDE |
| R | RADIUS |
| ROW | RIGHT-OF-WAY |
| RP | RADIUS POINT |
| RT | RIGHT |
| SDMH | STORM DRAIN MANHOLE |
| SS | SANITARY SEWER |
| SSCO | SANITARY SEWER CLEANOUT |
| SSMH | SANITARY SEWER MANHOLE |
| STA | STATION |
| STD | STANDARD |
| SWPPP | STORM WATER POLLUTION PREVENTION PLAN |
| T | TANGENT |
| TBG | TOP BACK OF GUTTER |
| TBM | TEMPORARY BENCH MARK |
| TC | TOP OF CONCRETE |
| TOB | TOP OF BANK |
| TOP | TOP OF PIPE |
| TYP | TYPICAL |
| UD | UNDERDRAIN |
| UON | UNLESS OTHERWISE NOTED |
| UST | UNDERGROUND STORAGE TANK |
| VC | VERTICAL CURVE |
| VERT | VERTICAL |
| VPI | VERTICAL POINT OF INTERSECTION |
| W/ | WITH |

SYMBOLS

EXISTING	PROPOSED	
		PRIMARY MONUMENT
		SECONDARY MONUMENT
		SURVEY SPIKE / MAG NAIL
		TEMPORARY BENCHMARK
		PROPERTY / BOUNDARY LINE
		PROPERTY / BOUNDARY LINE UNSERVED
		PROJECT BASELINE
		TOP OF BANK
		TOE OF SLOPE
		WATER GATE VALVE/CURB STOP
		WATER LINE/SERVICE
		SEWER LINE/SERVICE
		WOODEN FENCE
		CHAIN-LINK FENCE
		OVERHEAD ELECTRIC LINE
		ASPHALT PAVEMENT
		TREE LINE
		FIRE HYDRANT
		SANITARY SEWER MANHOLE
		SANITARY SEWER CLEANOUT
		CONCRETE HEADWALL W/ TRASH RACK
		STORM SEWER PIPE
		CATCH BASIN W/ AREA DRAIN
		TELEPHONE PEDESTAL
		CABLE PEDESTAL
		ELECTRICAL PEDESTAL
		POWER POLE WITH LIGHT
		GUY WIRE
		GANG STYLE MAILBOX
		STREET SIGN
		CONIFEROUS TREE
		DECIDUOUS TREE
		BUILDING FOUNDATION

DESIGN MSM
DRAWN MSM
CHECK JMP
APPROVED JMP
FILE:

No.	DATE	REVISION	BY	APRVD.

DELTA DRIVE
SUBDIVISION
JUNEAU, AK



GENERAL NOTES,
ABBREVIATIONS AND
SYMBOLS

DATE: Dec 03, 2020
PDC No. 20098JN
SHEET
C002

P:\2020\2098JN-Bicknell-DeltaC\CO001.crs20098JN.dwg PLOT: December 03, 2020 at: 3:58pm Mckel Minneh

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

WATER SERVICE SUMMARY			
LOT No.	STATION & OFFSET	SIZE/TYPE	REMARKS
2	10+95.1, 13.5' LT	1" POLY	SEE NOTE 1
3	11+28.9, 13.5' LT	1" POLY	SEE NOTE 1
4	11+81.8, 13.5' LT	1" POLY	SEE NOTE 1
5	12+15.3, 13.5' LT	1" POLY	SEE NOTE 1
6	12+58.8, 21.4' LT	1" POLY	SEE NOTE 1
7	11+68.0, 13.4' RT	1" POLY	NEW SERVICE
8	12+28.0, 13.5' RT	1" POLY	NEW SERVICE
9	14+71.4, 13.4' RT	1" POLY	NEW SERVICE
10	14+11.4, 13.3' RT	1" POLY	NEW SERVICE
11	15+22.0, 18.1' LT	1" POLY	SEE NOTE 1
12	14+96.0, 13.5' LT	1" POLY	SEE NOTE 1
13	14+62.5, 13.5' LT	1" POLY	SEE NOTE 1
14	14+09.2, 13.5' LT	1" POLY	SEE NOTE 1
15	13+85.5, 21.6' LT	1" POLY	SEE NOTE 1
NOTES: 1. EXISTING FOUNDATION PADS REPORTED TO HAVE 3/4" POLY WATER SERVICES TO EACH UNIT. EXISTING WATER SERVICES MAY BE REUSED IF FOUND TO BE IN SATISFACTORY CONDITION. FLUSHING, DISINFECTION AND PRESSURE TESTING SHALL BE PERFORMED ON THE EXISTING 3/4" POLY WATER SERVICES.			

STORM DRAIN STRUCTURE FRAME & GRATE SUMMARY	
STRUCTURE No.	EAST JORDAN, OLYMPIC FOUNDRY Co., CBJ STANDARD No., OR APPROVED EQUAL
S-1	OLYMPIC FOUNDRY MH34SC

SEWER SERVICE SUMMARY			
LOT No.	STATION & OFFSET	SIZE/TYPE	REMARKS
2	10+82.7, 14.0' LT	4" PVC	SEE NOTE 1
3	11+16.6, 14.0' LT	4" PVC	SEE NOTE 1
4	11+71.4, 14.0' LT	4" PVC	SEE NOTE 1
5	12+02.3, 14.0' LT	4" PVC	SEE NOTE 1
6	12+52.1, 14.0' LT	4" PVC	SEE NOTE 1
7	11+38.0, 14.5' RT	4" PVC	NEW SERVICE
8	11+98.0, 14.5' RT	4" PVC	NEW SERVICE
9	15+01.5, 14.5' RT	4" PVC	NEW SERVICE
10	14+41.4, 14.5' RT	4" PVC	NEW SERVICE
11	15+27.7, 14.0' LT	4" PVC	SEE NOTE 1
12	15+07.9, 14.0' LT	4" PVC	SEE NOTE 1
13	14+77.6, 14.0' LT	4" PVC	SEE NOTE 1
14	14+22.8, 14.0' LT	4" PVC	SEE NOTE 1
15	13+92.1, 14.0' LT	4" PVC	SEE NOTE 1
NOTES: 1. SEWER SERVICE LOCATIONS SHOWN ARE FROM LIMITED AS-BUILT INFORMATION AND WERE NOT FIELD LOCATED. EXISITNG 4" PVC SEWER SERVICES EXIST FOR LOTS 2-6 AND LOTS 11-15. CONTRACTOR SHALL FIELD LOCATE ALL SEWER SERVICES TO CONFIRM FINAL LOCATION FOR NEW SEWER SERVICE CLEANOUT INSTALLATION. STATION & OFFSET ARE GIVEN TO THE CENTER OF THE NEW CLEANOUT LID. IF EXISTING SANITARY SEWER SERVICES FOUND TO BE IN GOOD CONDITION CONTRACTOR MAY KEEP THEM IN SERVICE. 2. CONSTRUCT NEW 4" PVC SEWER SERVICE AND INSTALL NEW CLEANOUT NEAR PROPERTY LINE PER CBJ STANDARD DETAIL 213 AND CONNECT TO EXISTING SEWER SERVICE. 3. ADJUST SEWER SERVICE SLOPE TO PROVIDE MAXIMUM SEPARATION BETWEEN UTILITY CROSSINGS. INSTALL SWEEPS AS REQUIRED UPON APPROVAL OF THE ENGINEER.			

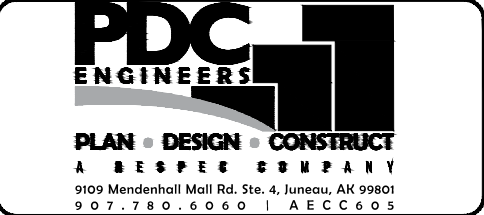
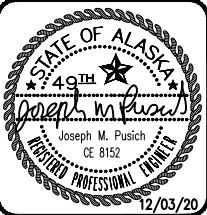
P:\2020\20098JN-Bicknell-Delta\CD\002020a\20098JN.dwg PLOT: December 03, 2020 at: 9:59pm Mickl, Minich

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DELTA DRIVE
SUBDIVISION

JUNEAU, AK



SUMMARY TABLES

DATE: Dec 03, 2020
PDC No. 20098JN
SHEET
C003

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

SURVEY NOTES

1. THE PURPOSE OF THIS SURVEY IS TO PROVIDE A TOPOGRAPHIC DESIGN SURVEY OF THE DELTA DRIVE DEVELOPMENT.
2. THE FIELD SURVEYS WERE PERFORMED ON MAY 26-27, 2020.
3. THE SURVEY EQUIPMENT UTILIZED DURING THIS SURVEY WAS TRIMBLE R8-2 GNSS ROVER AND BASE AND A TRIMBLE S-7 ROBOTIC TOTAL STATION UTILIZING STANDARD LASER MEASURING TECHNIQUES.
4. ALL DISTANCES AND DIMENSIONS ARE IN U.S. SURVEY FEET AND REDUCED TO THEIR HORIZONTAL VALUES.
5. CONTROL AND MONUMENT COORDINATES ARE IN AN ASSUMED LOCAL COORDINATE SYSTEM.
6. ELEVATIONS ARE IN AN ASSUMED LOCAL VERTICAL DATUM.
7. CONTOURS ARE SHOWN AT 1-FOOT INTERVALS.
8. ALL UTILITIES WERE LOCATED BY PDC AND ARE BASED ON OBSERVABLE EVIDENCE AND ABOVE GROUND APPURTENANCES AND FIELD RETRACEMENT PERFORMED BY PDC.
9. THIS SURVEY DOES NOT CONSTITUTE A SUBDIVISION AS PER ALASKA STATUTE 40.15.900(5)(a).

EXIST. SSCO	(CO1)
STA 10+04.9,	33.3 LT
EXIST. LID EL=	97.31
SW 8" (OUT) IE=	94.81

EXIST. SSMH	(M1)
STA 08+90.8,	25.9 RT
EXIST. LID EL=	98.50
E 6" (IN) IE=	92.94
NW 8" (OUT) IE=	92.84

NOTES:

1. ROADWAY AND UTILITY INFORMATION SHOWN ON DELTA DRIVE IS PROPOSED FROM CBJ CONTRACT BE21-028 "DELTA DRIVE RECONSTRUCTION." WORK IS SCHEDULED FOR SPRING/SUMMER 2021.
2. EXISTING 6" PVC SEWER MAIN AND 2" POLY PIPE FOR DOMESTIC WATER EXIST ON SITE.

TABLE OF HORIZONTAL CONTROL POINTS

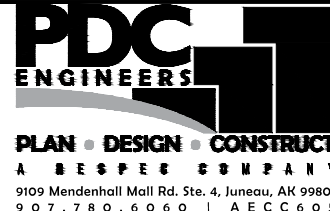
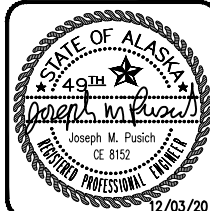
POINT #	NORTHING	EASTING	DESCRIPTION
CP 10	10112.63	10356.34	S-3650, SECONDARY, 1" PLASTIC CAP
CP 11	10014.23	10385.34	MAG NAIL
CP 15	9896.49	10453.74	SURVEY SPIKE
CP 16	10027.18	10545.16	SURVEY SPIKE

TABLE OF VERTICAL CONTROL POINTS

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
FH-1	9983.52	10247.42	100.44'	"X" ON NORTH FIRE HYDRANT BOLT

DELTA DRIVE SUBDIVISION

JUNEAU, AK



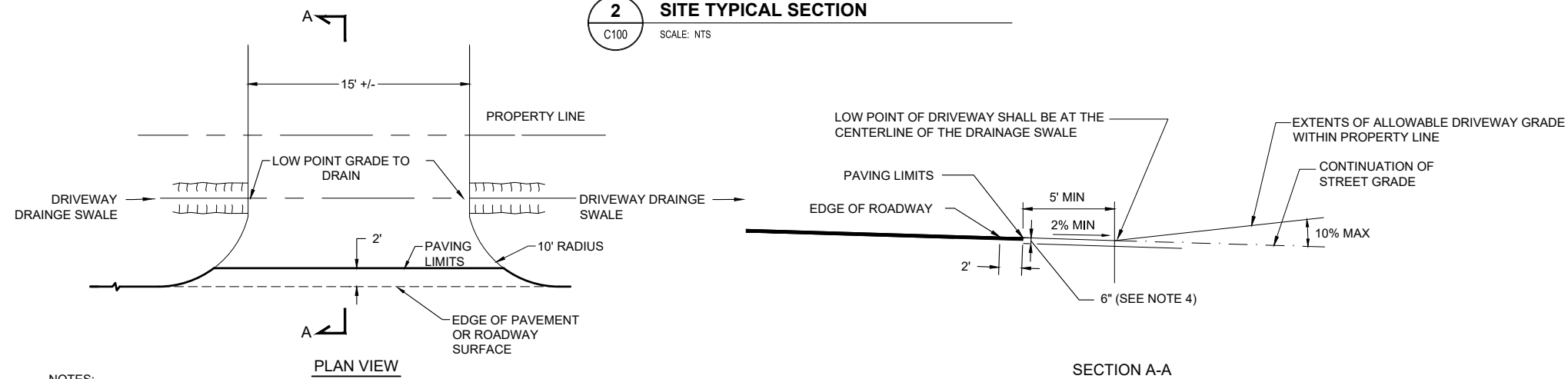
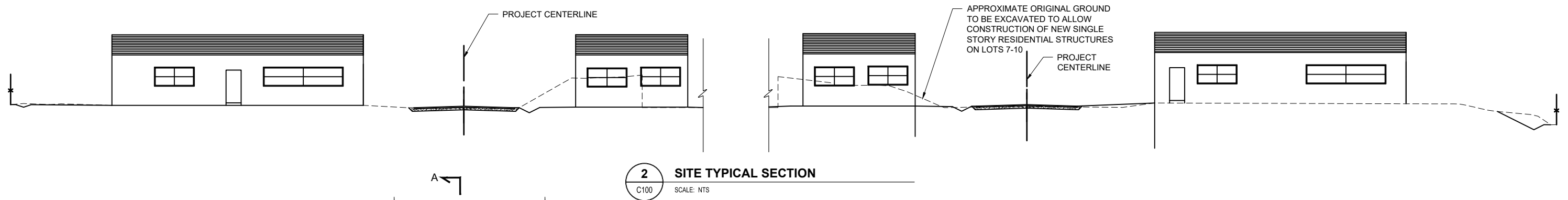
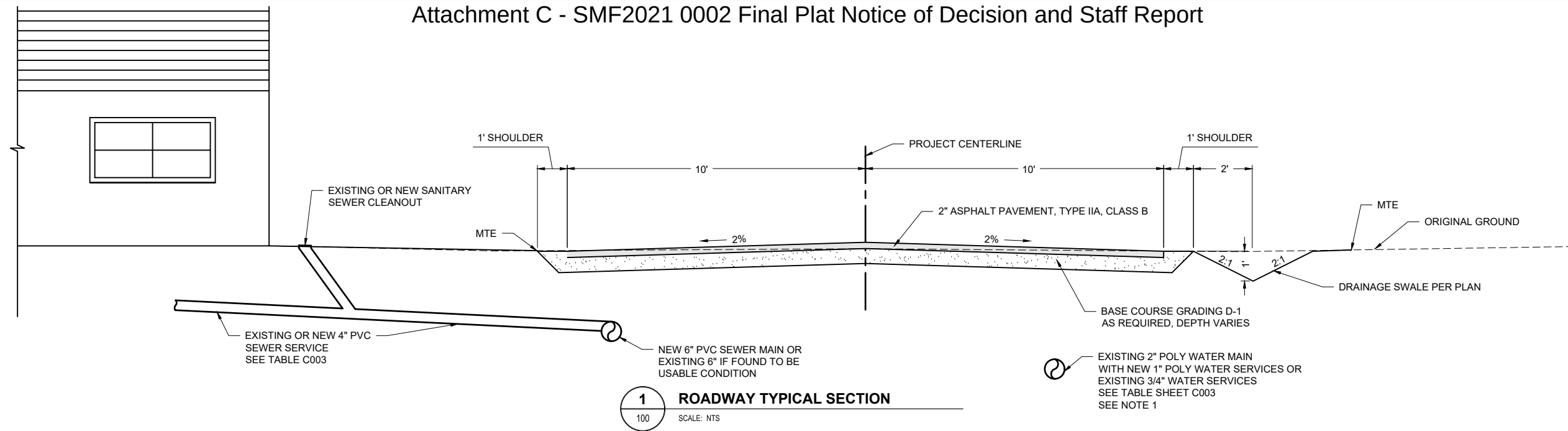
EXISTING SITE CONDITIONS

DATE: Dec 03, 2020
DC No. 20098JN

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C004

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- NOTES:

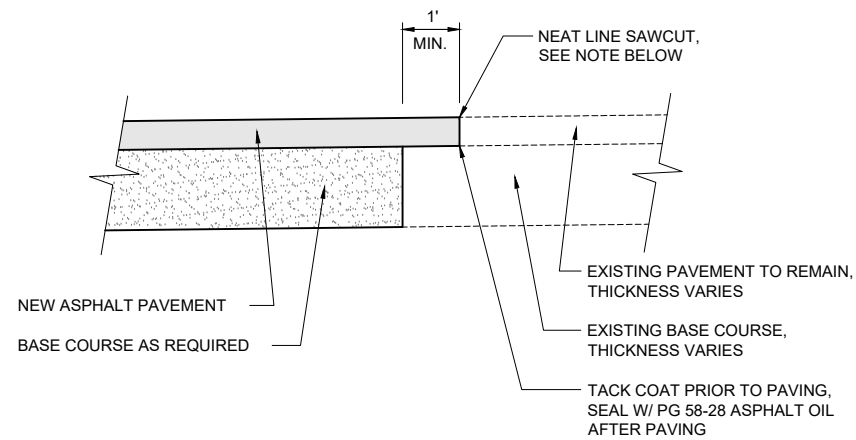
1. PAVING LIMIT FOR DRIVEWAYS SHALL BE 2' FROM THE EDGE OF ROADWAY OR AS APPROVED BY THE ENGINEER.
2. DRIVEWAY SWALE SHALL BE GRADED TO DRAIN INTO DRAINAGE SWALE



SHEET C100 NOTES:

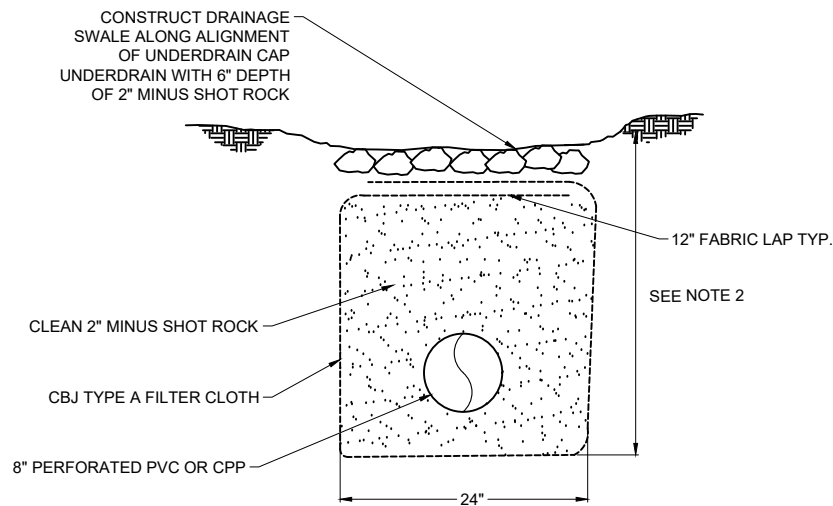
1. EXISTING 2" POLY WATER LINE WILL BE FLUSHED, DISINFECTED AND PRESSURE TESTED IN ACCORDANCE WITH CBJ STANDARD SPECIFICATIONS TO ENSURE COMPLIANCE WITH PUBLIC DRINKING WATER REGULATIONS.

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report



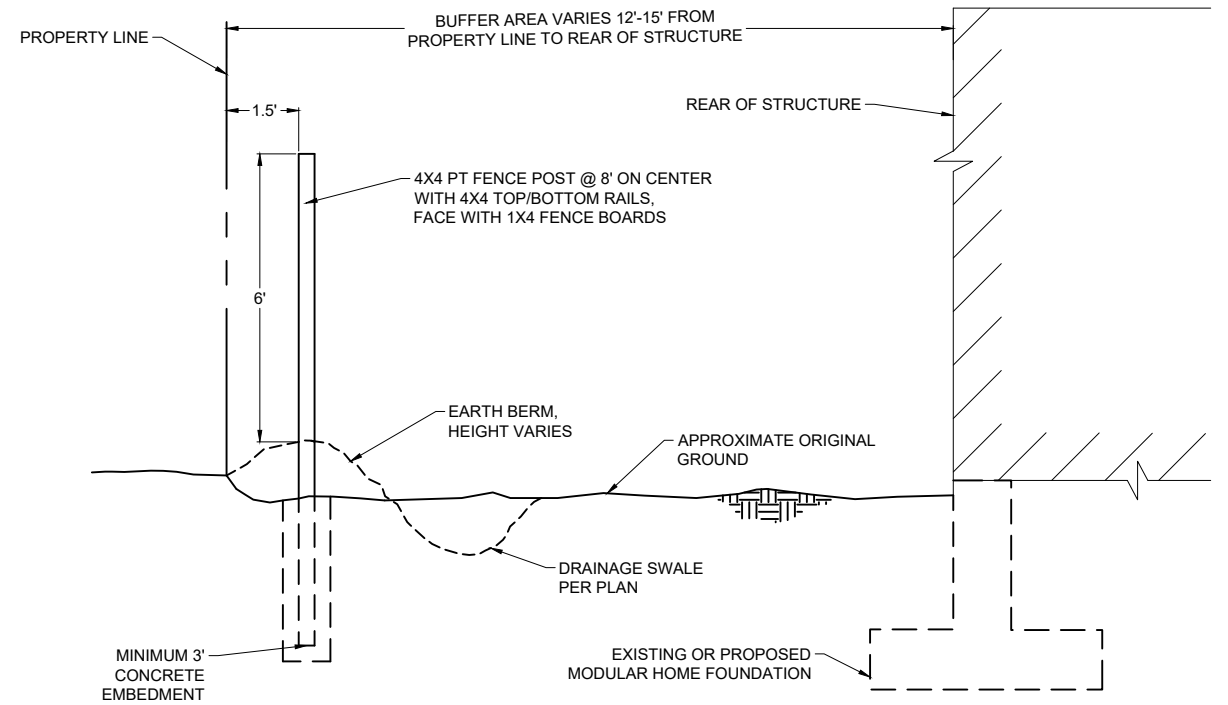
NOTE:
SAWCUT OF EXISTING PAVEMENT SHALL NOT BE
MADE UNTIL 24 HOURS PRIOR TO FINAL PAVING.

1 PAVEMENT MATCH DETAIL

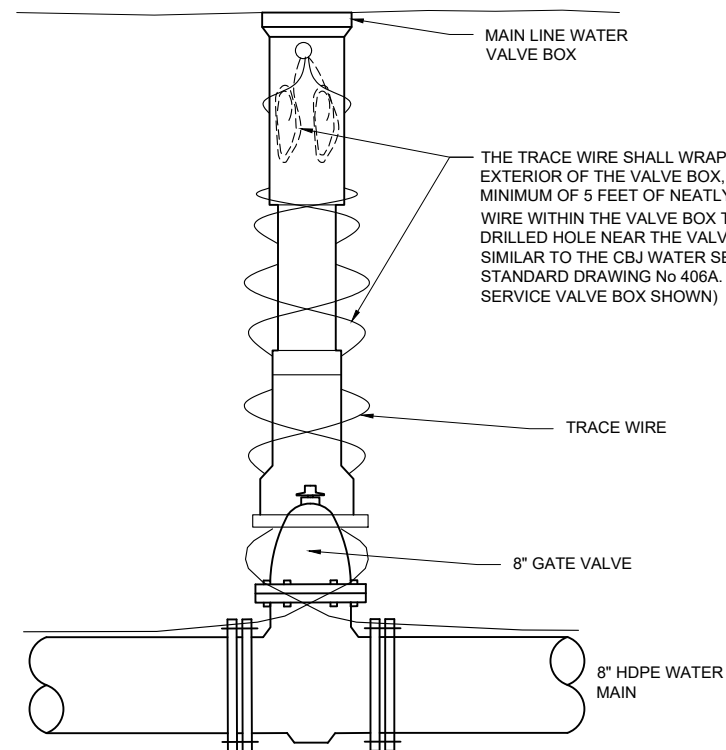


- NOTES:**
1. OUTFALL CONNECTIONS TO DAYLIGHT NEAR CULVERT INLETS PER PLAN.
 2. DEPTH OF UNDERDRAIN VARIES, MIN SLOPE=0.50%

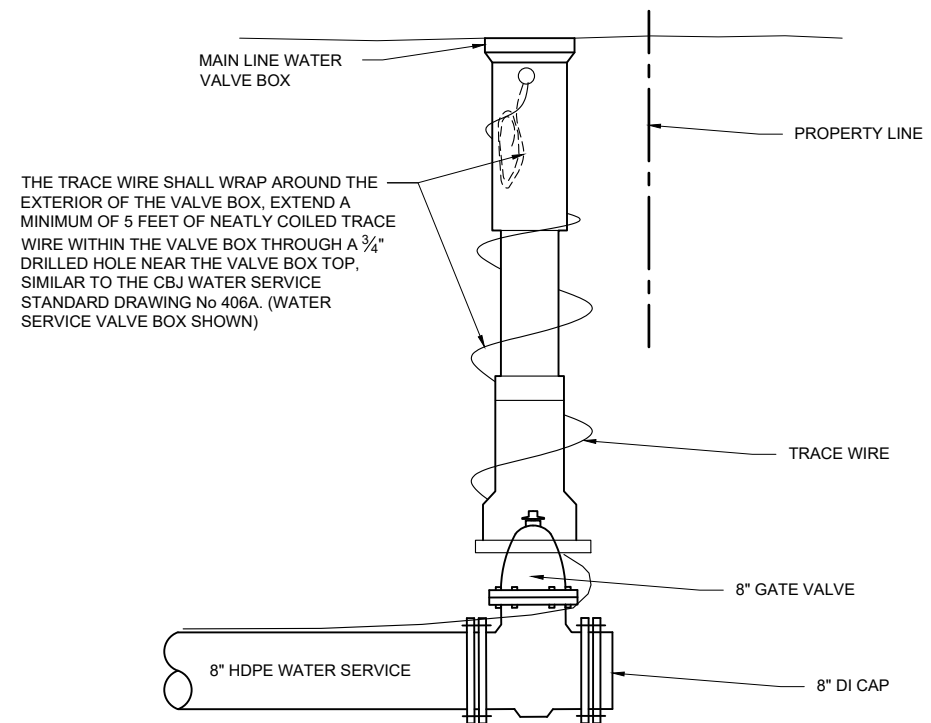
2 **8" UNDERDRAIN DETAIL**
C101 SCALE: NTS



3 TYPICAL FENCE AT REAR OF DWELLING
C101 SCALE: 1"=2'



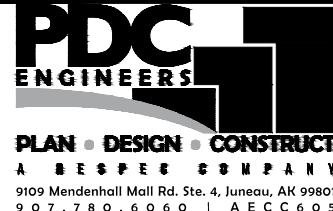
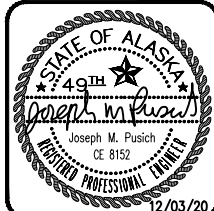
4 MAIN LINE VALVE TRACE WIRE TERMINATION DETAIL



5 WATER SERVICE VALVE TRACE C101 WIRE TERMINATION DETAIL

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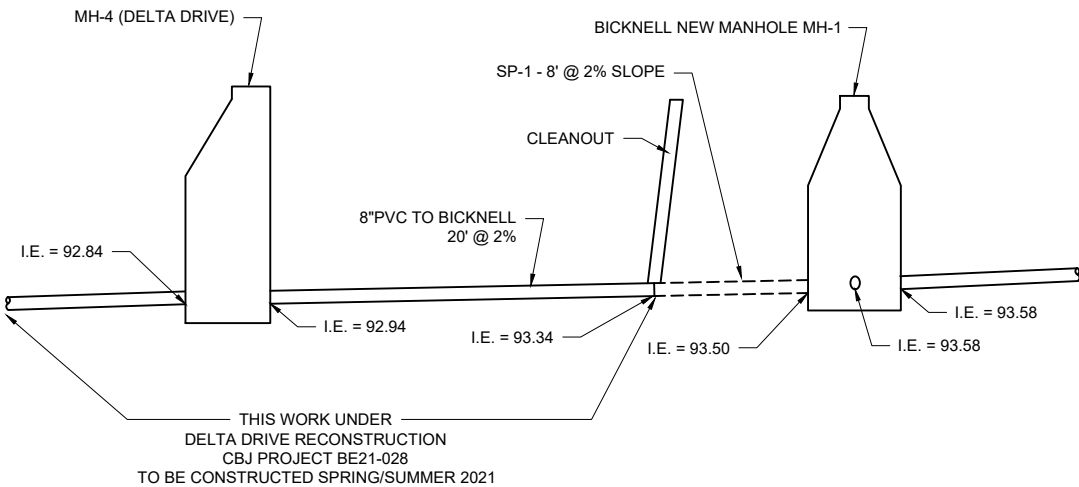
DELTA DRIVE
SUBDIVISION



CONSTRUCTION DETAILS

DATE: Dec 03, 2020
DOC No. 20098JN

SHEET
C101



1 SEWER PROFILE CONNECTION
C102 SCALE: NTS

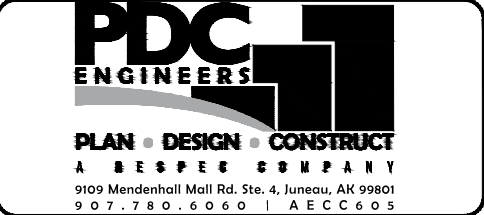
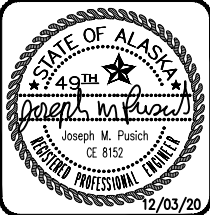
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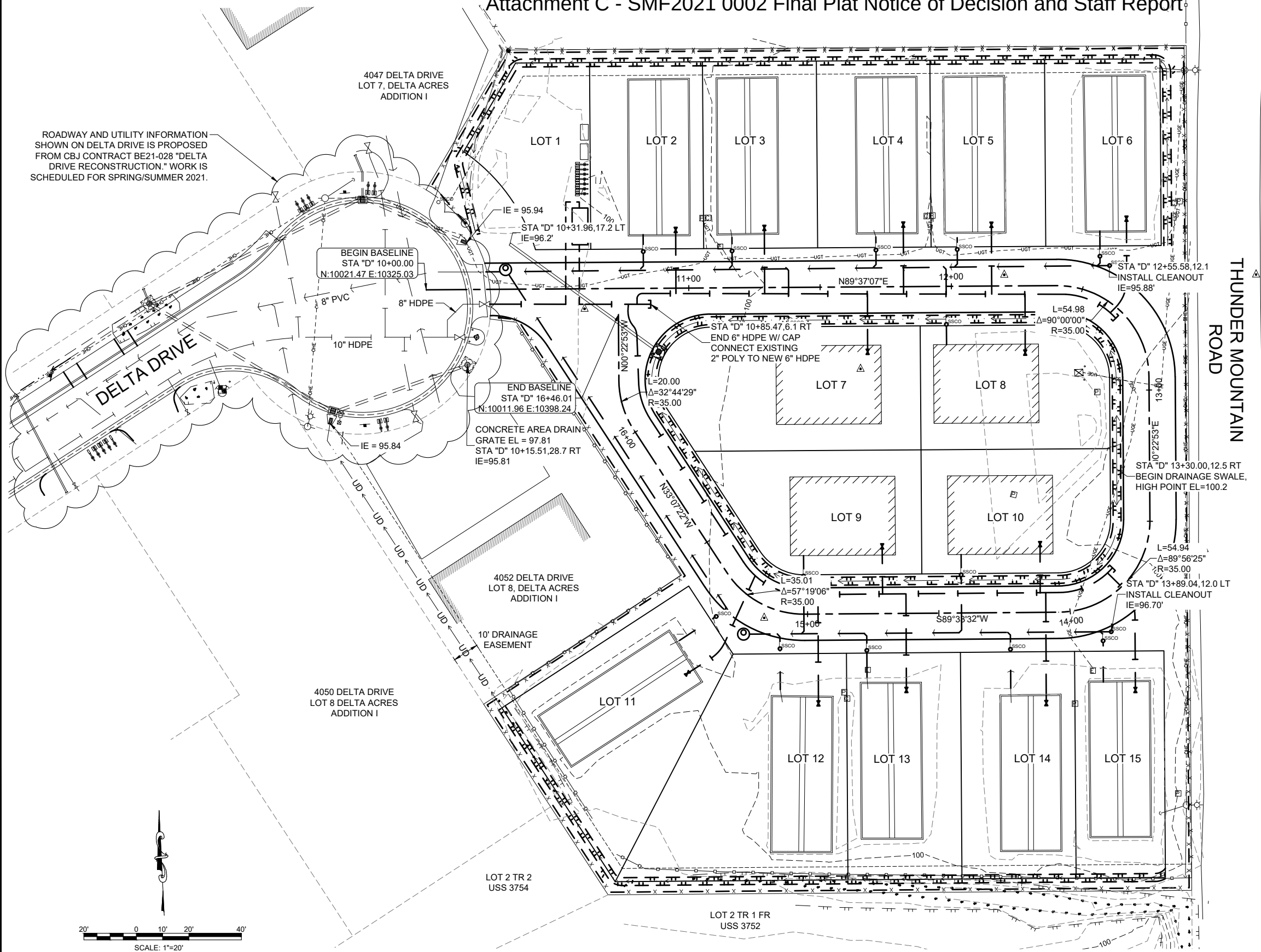
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CONSTRUCTION DETAILS

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SHEET
C102

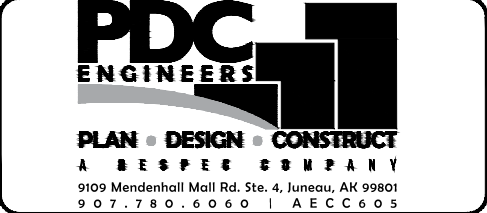
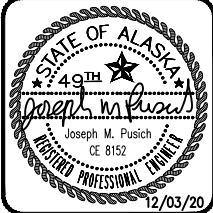
DIAL BEFORE YOU DIG!
586-1333
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FOR ACS AND GCI LOCATES
DIAL THE 811 ALASKA DIGLINE



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DELTA DRIVE
SUBDIVISION
JUNEAU, AK



OVERALL SITE PLAN

DATE: Dec 03, 2020
PDC No. 20098JN
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C200

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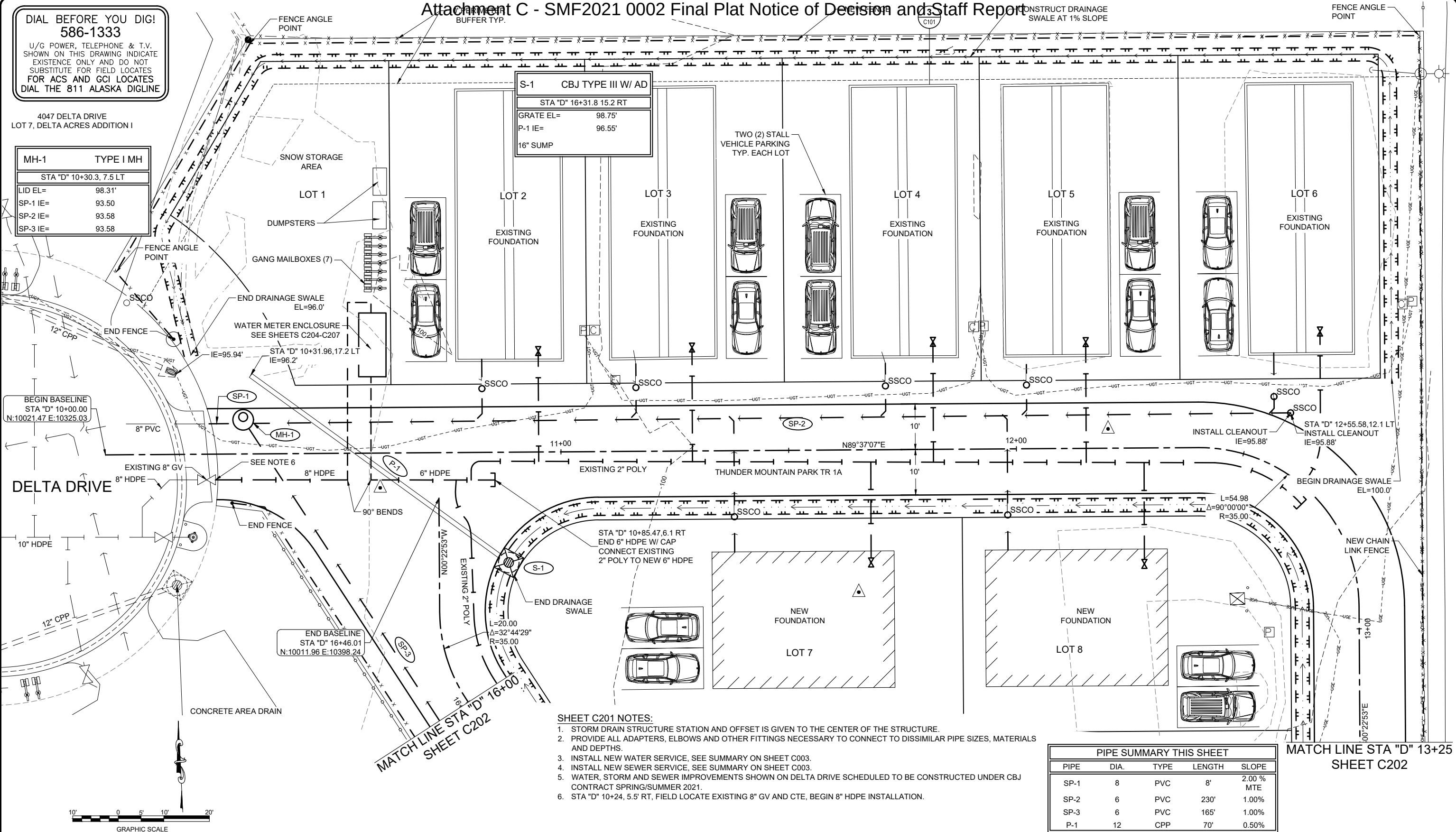
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586-1333

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FOR ACS AND GCI LOCATES
DIAL THE 811 ALASKA DIGLINE

4047 DELTA DRIVE
LOT 7, DELTA ACRES ADDITION I

MH-1	TYPE I MH
STA "D" 10+30.3, 7.5 LT	
LID EL=	98.31'
SP-1 IE=	93.50
SP-2 IE=	93.58
SP-3 IE=	93.58

S-1	CBJ TYPE III W/ AD
STA "D" 16+31.8 15.2 RT	
GRATE EL=	98.75'
P-1 IE=	96.55'
16" SUMP	



SHEET C201 NOTES:

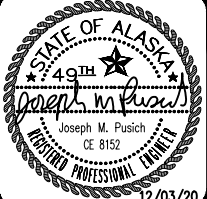
1. STORM DRAIN STRUCTURE STATION AND OFFSET IS GIVEN TO THE CENTER OF THE STRUCTURE.
2. PROVIDE ALL ADAPTERS, ELBOWS AND OTHER FITTINGS NECESSARY TO CONNECT TO DISSIMILAR PIPE SIZES, MATERIALS AND DEPTHS.
3. INSTALL NEW WATER SERVICE, SEE SUMMARY ON SHEET C003.
4. INSTALL NEW SEWER SERVICE, SEE SUMMARY ON SHEET C003.
5. WATER, STORM AND SEWER IMPROVEMENTS SHOWN ON DELTA DRIVE SCHEDULED TO BE CONSTRUCTED UNDER CBJ CONTRACT SPRING/SUMMER 2021.
6. STA "D" 10+24, 5.5' RT, FIELD LOCATE EXISTING 8" GV AND CTE, BEGIN 8" HDPE INSTALLATION.

PIPE SUMMARY THIS SHEET				
PIPE	DIA.	TYPE	LENGTH	SLOPE
SP-1	8	PVC	8'	2.00 % MTE
SP-2	6	PVC	230'	1.00%
SP-3	6	PVC	165'	1.00%
P-1	12	CPP	70'	0.50%

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APPROVED JMP
FILE:

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DELTA DRIVE
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JUNEAU, AK

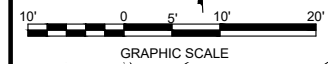
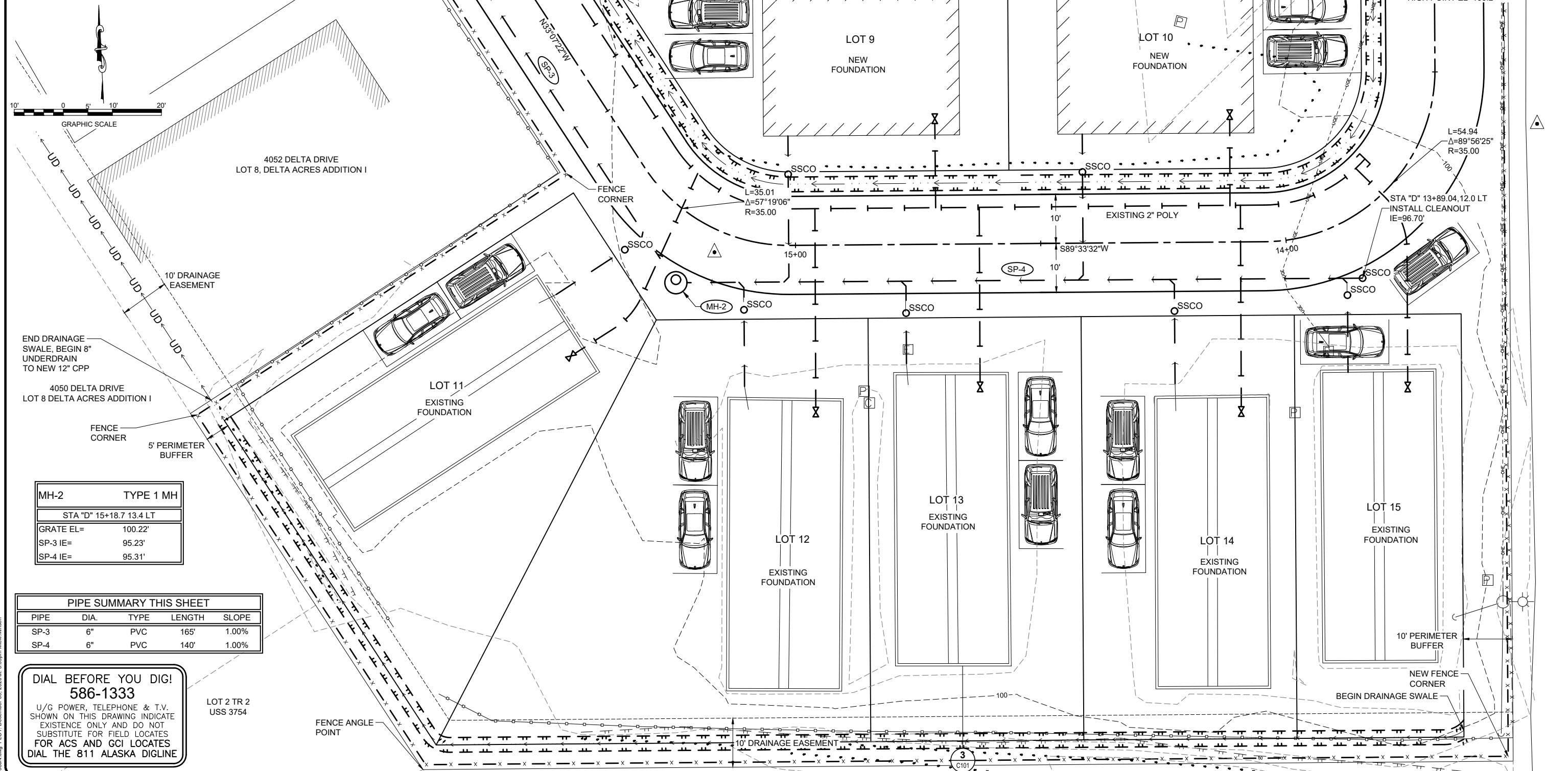


SITE & UTILITY PLAN

DATE: Dec 03, 2020
PDC No. 20098JN
SHEET
C201

SHEET C202 NOTES:

1. STORM DRAIN STRUCTURE STATION AND OFFSET IS GIVEN TO THE CENTER OF THE STRUCTURE. FRAME ELEVATION IS GIVEN TO THE TOP, FRONT OF FRAME.
2. PROVIDE ALL ADAPTERS, ELBOWS AND OTHER FITTINGS NECESSARY TO CONNECT TO DISSIMILAR PIPE SIZES, MATERIALS AND DEPTHS.
3. INSTALL NEW WATER SERVICE, SEE SUMMARY ON SHEET C003.
4. INSTALL NEW SEWER SERVICE, SEE SUMMARY ON SHEET C003.



4052 DELTA DRIVE
LOT 8, DELTA ACRES ADDITION I

END DRAINAGE
SWALE, BEGIN 8"
UNDERDRAIN
TO NEW 12" CPP

4050 DELTA DRIVE
LOT 8 DELTA ACRES ADDITION I

FENCE
CORNER
5' PERIMETER
BUFFER

MH-2	TYPE 1 MH
STA "D" 15+18.7 13.4 LT	
GRATE EL=	100.22'
SP-3 IE=	95.23'
SP-4 IE=	95.31'

PIPE SUMMARY THIS SHEET				
PIPE	DIA.	TYPE	LENGTH	SLOPE
SP-3	6"	PVC	165'	1.00%
SP-4	6"	PVC	140'	1.00%

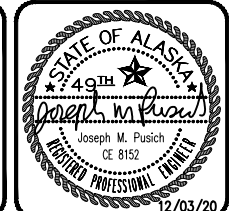
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LOT 2 TR 2
USS 3754

FENCE ANGLE
POINT

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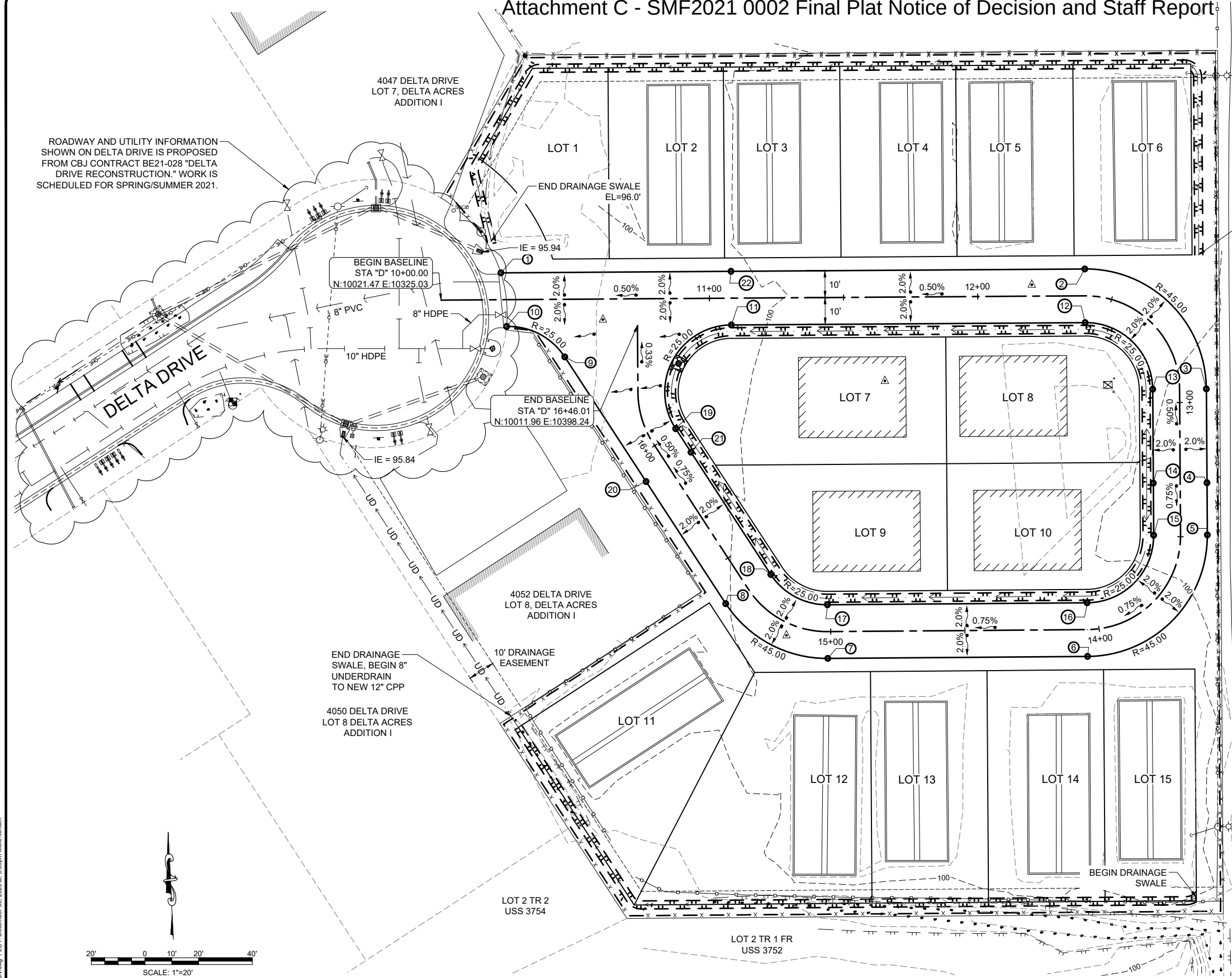


SITE & UTILITY PLAN

DATE: Dec 03, 2020
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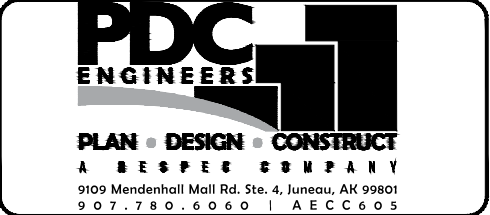
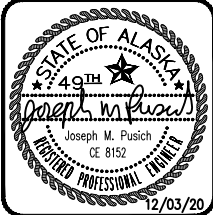


GRADE POINT SUMMARY TABLE THIS SHEET				
POINT No.	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	10031.62	10347.33	98.29 *	EDGE OF PAVEMENT/MTE
2	10033.07	10564.96	100.32	EDGE OF PAVEMENT/PC
3	9988.37	10610.26	100.88	EDGE OF PAVEMENT/PT
4	9953.35	10610.49	101.24	EDGE OF PAVEMENT/HIGH POINT
5	9933.92	10610.62	101.09	EDGE OF PAVEMENT/PC
6	9888.64	10565.97	100.68	EDGE OF PAVEMENT/PT
7	9887.89	10469.17	99.97	EDGE OF PAVEMENT/PC
8	9908.30	10431.14	99.67	EDGE OF PAVEMENT/PT
9	10000.30	10371.11	98.59	EDGE OF PAVEMENT/PC
10	10011.64	10349.47	98.34 *	EDGE OF PAVEMENT/PT/MTE
11	10012.19	10433.23	99.66	EDGE OF PAVEMENT/PT
12	10013.07	10565.10	100.32	EDGE OF PAVEMENT/PC
13	9988.24	10590.26	100.88	EDGE OF PAVEMENT/PT
14	9953.22	10590.50	101.24	EDGE OF PAVEMENT/HIGH POINT
15	9933.79	10590.62	101.09	EDGE OF PAVEMENT/PC
16	9908.64	10565.82	100.68	EDGE OF PAVEMENT/PT
17	9907.89	10469.02	99.97	EDGE OF PAVEMENT/PC
18	9919.17	10447.92	99.67	EDGE OF PAVEMENT/PT
19	9973.53	10412.46	99.19	EDGE OF PAVEMENT/PC
20	9953.85	10401.42	99.29	EDGE OF PAVEMENT
21	9964.78	10418.17	99.29	EDGE OF PAVEMENT
22	10032.19	10433.09	99.66	EDGE OF PAVEMENT

*CBJ DELTA DRIVE RECONSTRUCTION TOP OF ASPHALT PAVEMENT ELEVATION

DESIGN	MSM				
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APPROVED	JMP				
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DELTA DRIVE
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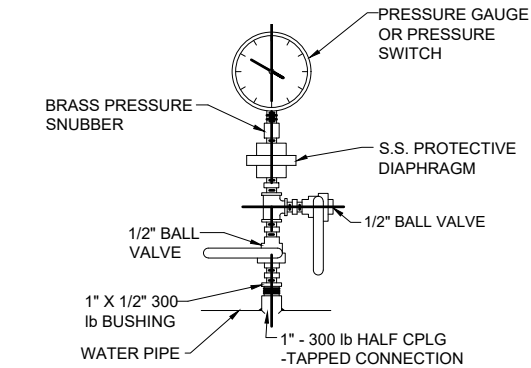
GRADING PLAN

DATE: Dec 03, 2020
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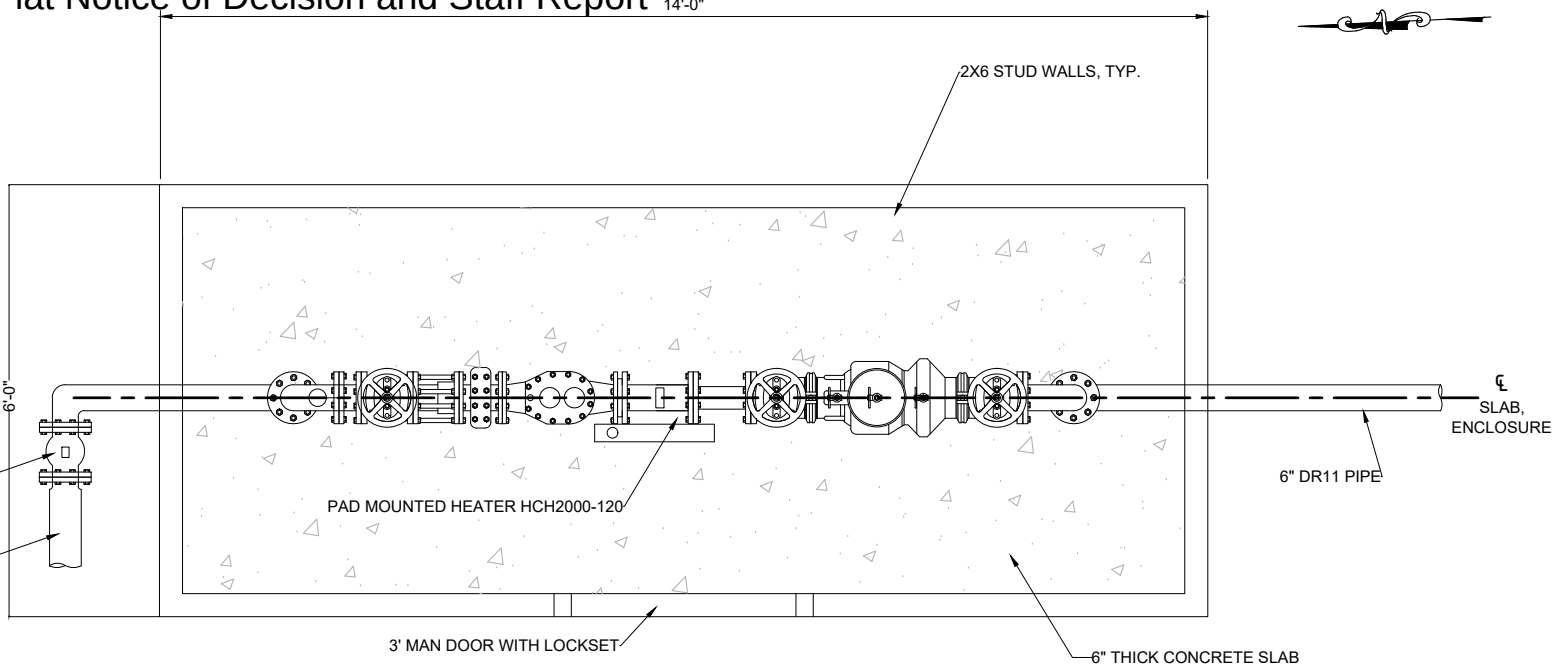
NOTES:

1. CBJ SPECIFICATION 02601 - WATER SYSTEM AND 02602 - VALVES, AND OTHER CBJ STANDARD SPECIFICATIONS APPLY EXCEPT AS MODIFIED BELOW.
2. ALL JOINTS BETWEEN THE CONNECTIONS TO THE MAINLINES ON BOTH SIDES OF THE METER ENCLOSURE SHALL BE RESTRAINED.
3. ALL BOLTS, NUTS AND WASHERS SHALL BE SERIES 300 STAINLESS STEEL.
4. ALL METALLIC VALVES AND FITTINGS SHALL BE FACTORY EPOXY COATED INSIDE AND OUT, 8 MILS MINIMUM.
5. BURIED FITTINGS SHALL BE THRUST BLOCKED PER CBJ STANDARD DETAILS.
6. DIP, HDPE PIPE AND PIPE STANDS ARE PER CBJ SECTION 02602.
7. ALL PIPE AND SPOOL PIECES ABOVE GRADE ARE TO BE FLANGED, WITH 125# FLANGES. USE A FLANGE ADAPTOR WITH THE CONNECTION TO HDPE.
8. GATE VALVES SHALL HAVE HAND WHEELS.
9. PRESSURE GAUGE IS TO BE STAINLESS STEEL, GLYCERIN FILLED, WITH A 3½ OR 4-INCH FACE AND 150 TO 160 PSI PRESSURE RANGE.
10. THE GATE VALVE AHEAD OF THE METER IS TO BE FLXFL, WHILE THE VALVES ON EITHER SIDE OF THE DOUBLE CHECK MAY BE FLXVIC. VALVES SHALL COMPLY WITH AWWA C509 OR C515.
11. THE METER SHALL BE A 4-INCH NEPTUNE TRUFLO COMPOUND METER WITH A STRAINER.
12. THE DOUBLE CHECK VALVE SHALL BE A 6-INCH ZURN 350A WITH THE GATE VALVES, OR APPROVED EQUAL. THE DOUBLE CHECK SHALL MEET THE REQUIREMENTS OF AWWA C510 AND BE ASSE AND NSF LISTED.
13. TWO DUPLEX 120-V ELECTRICAL OUTLETS SHALL BE INSTALLED INSIDE THE ENCLOSURE. CONDUIT SHALL RUN FROM THE EXTERIOR MOUNTED DISCONNECT BOX NEAR THE ELECTORAL METER, UNDERGROUND, AND COME UP THROUGH THE CONCRETE SLAB. THE OUTLETS SHALL BE MOUNTED ABOVE THE FLOOR AND LOCATED FOR EASY ACCESS THROUGH THE PANELS.
14. ALL ELECTRICAL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICIAN AND COMPLY WITH ALL APPROPRIATE ELECTRICAL CODES. ANY REQUIRED ELECTRICAL PERMITS SHALL BE OBTAINED. COORDINATE WITH THE LOCAL ELECTRICAL UTILITY AS NECESSARY AND PROVIDE ANY EQUIPMENT THEY REQUIRE TO COMPLETE THEIR SERVICE TO THIS LOCATION.



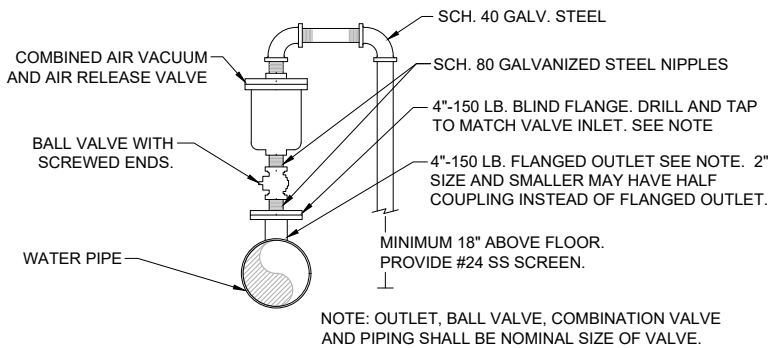
1 PRESSURE GAUGE OR SWITCH
C204 SCALE: NTS

6" GATE VALVE
8" DR11 PIPE



2 WATER METER ENCLOSURE - PLAN
C204 SCALE: NTS

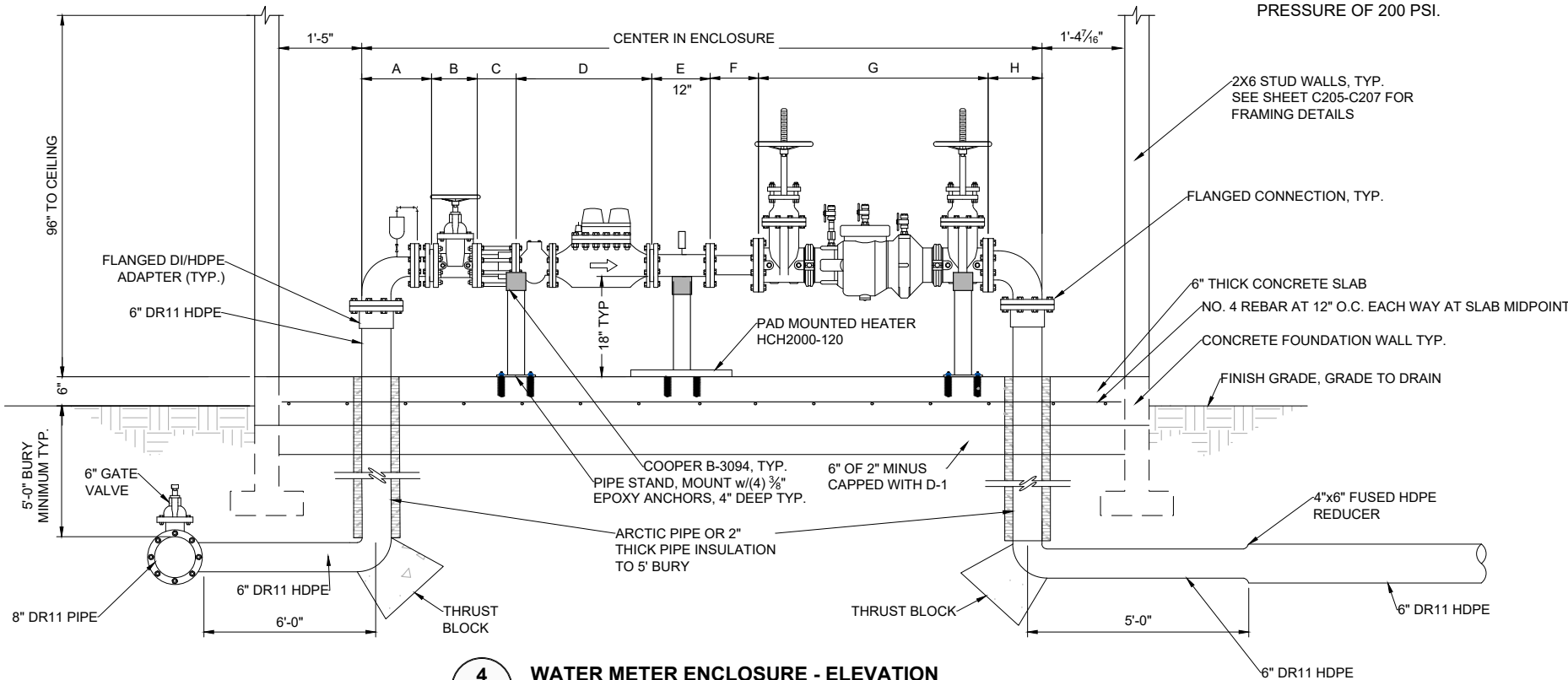
DESIGNATION	COMPONENT DESCRIPTION
A	6X4" DI REDUCING 90° ELBOW W/ TAP AND 1" AIR RELEASE VALVE
B	4" NRS GATE VALVE
C	4" DISMANTLING JOINT, SET TO 8" ±
D	4" METER W/ STRAINER
E	4" DI PIPE SPOOL W/ 1" TAPPED CONNECTION, SAMPLING PORT, AND PRESSURE GAGUE (SEE DETAIL)
F	4" SPOOL PIECE
G	4" DOUBLE CHECK VALVE
H	4" DI 90° BEND



3 AIR/VACUUM & AIRE RELEASE VALVE ASSEMBLY
C204 SCALE: NTS

NOTES:

1. ALL JOINTS TO BE FUSED, FLANGED, OR RESTRAINED TO WITHSTAND A MINIMUM PRESSURE OF 200 PSI.

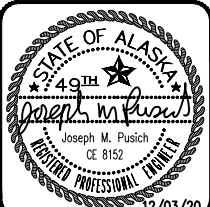


4 WATER METER ENCLOSURE - ELEVATION
C204 SCALE: NTS

DESIGN MSM
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FILE:

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DELTA DRIVE
SUBDIVISION
JUNEAU, AK

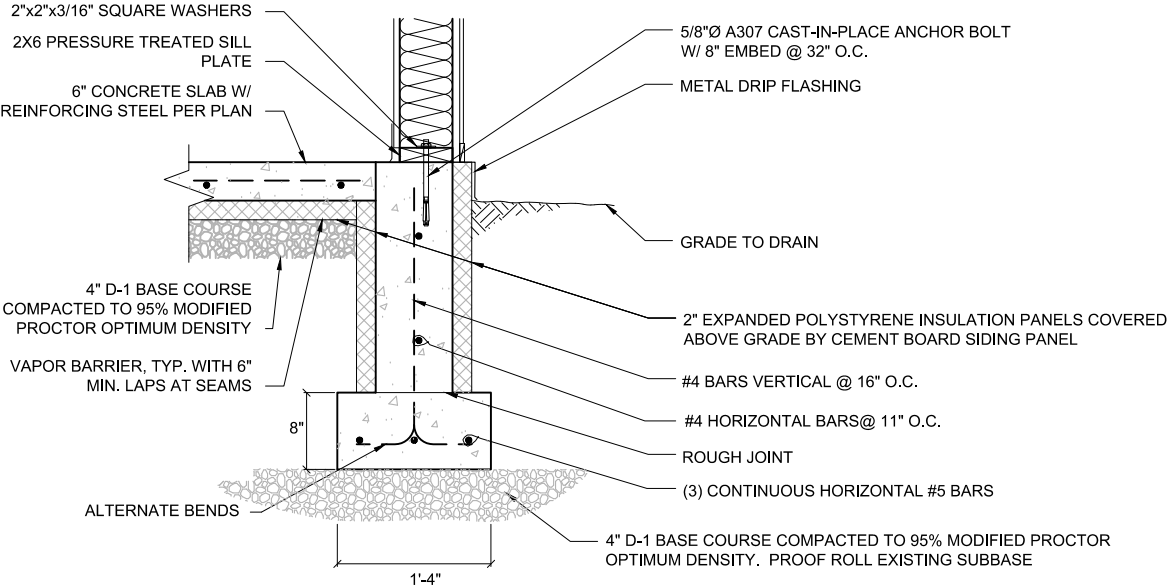


WATER METER
ENCLOSURE DETAILS

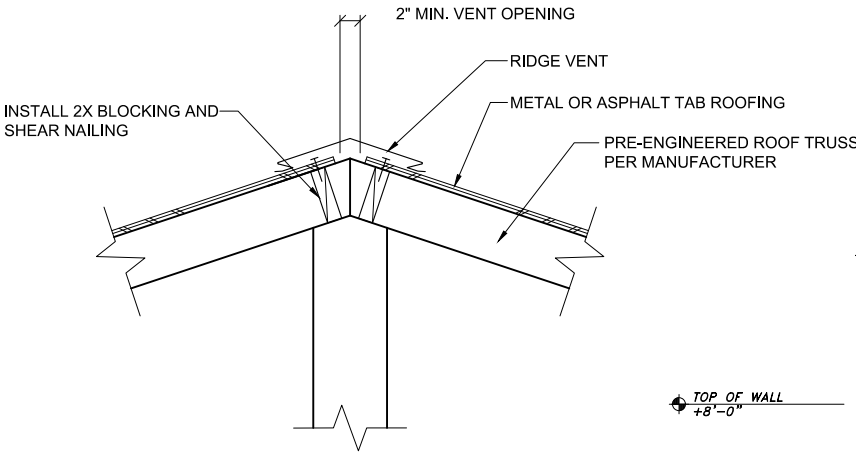
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PDC No. 20098JN
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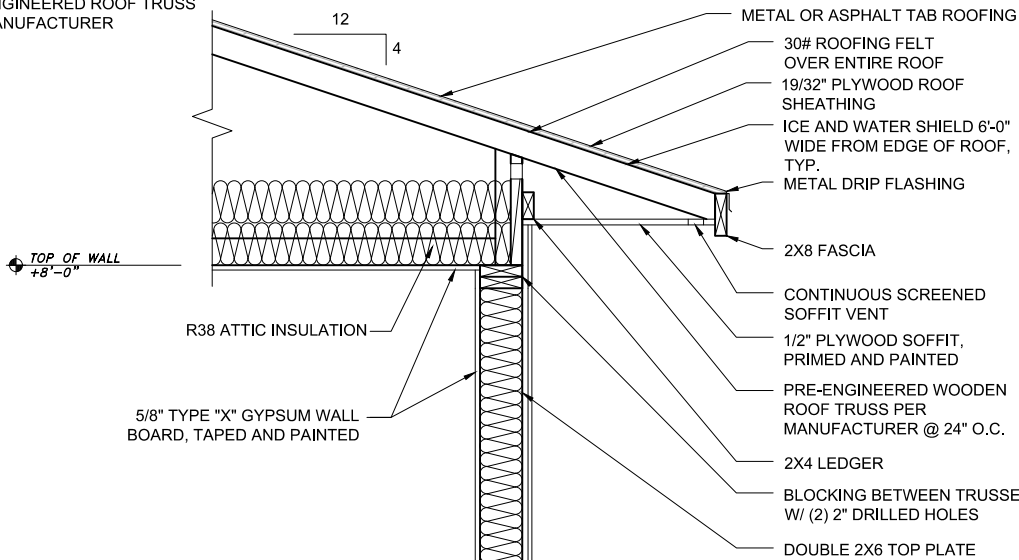
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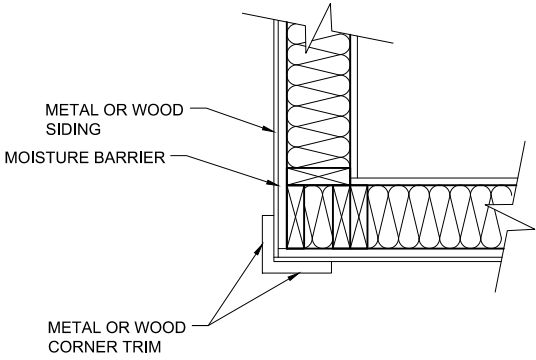
1 FOUNDATION AND STEM WALL DETAIL
C205 SCALE: NTS



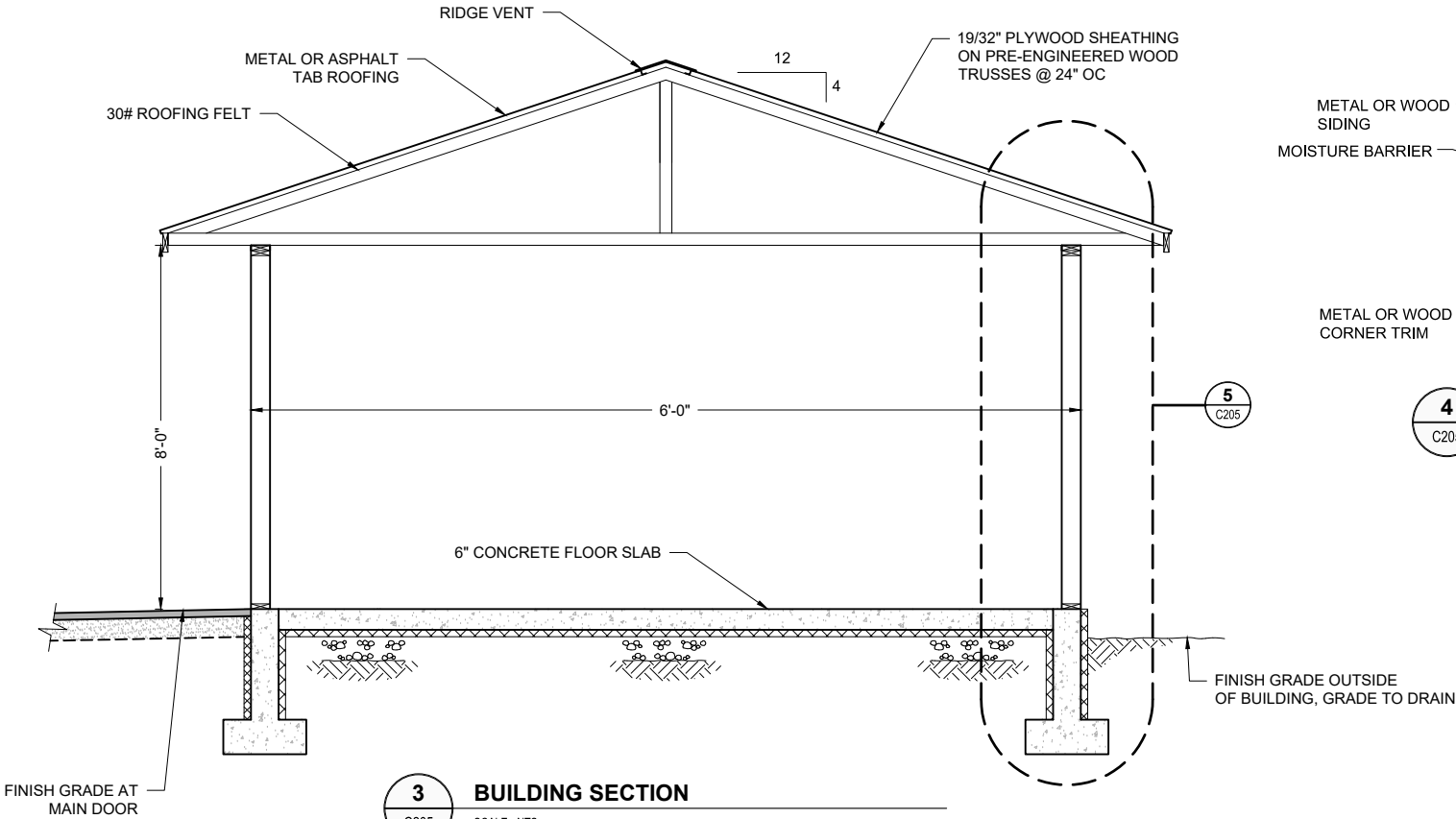
2 ROOF RIDGE VENT DETAIL
C205 SCALE: NTS



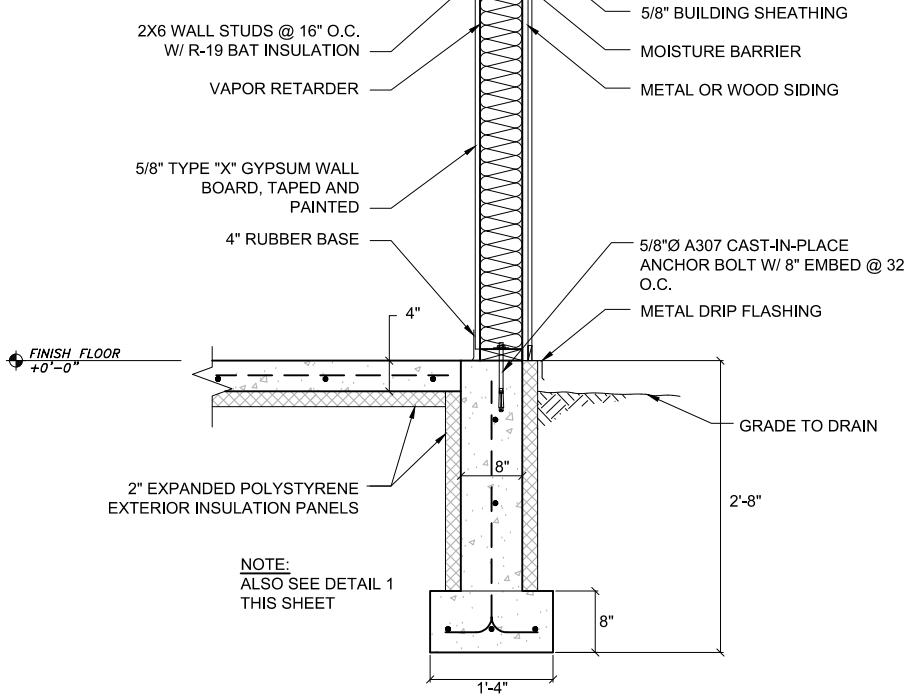
5 WALL SECTION
C205 SCALE: NTS



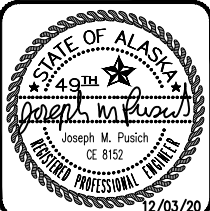
4 OUTSIDE CORNER DETAIL
C205 SCALE: NTS



3 BUILDING SECTION
C205 SCALE: NTS



DELTA DRIVE
SUBDIVISION
JUNEAU, AK



WATER METER
ENCLOSURE DETAILS

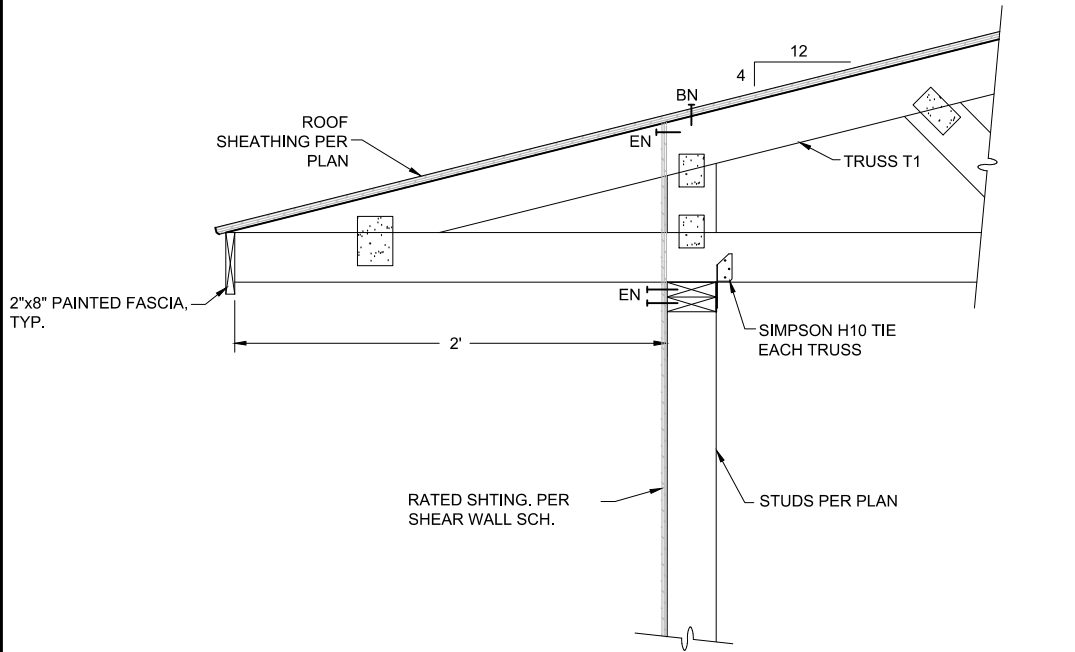
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PDC No. 20098JN
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C205

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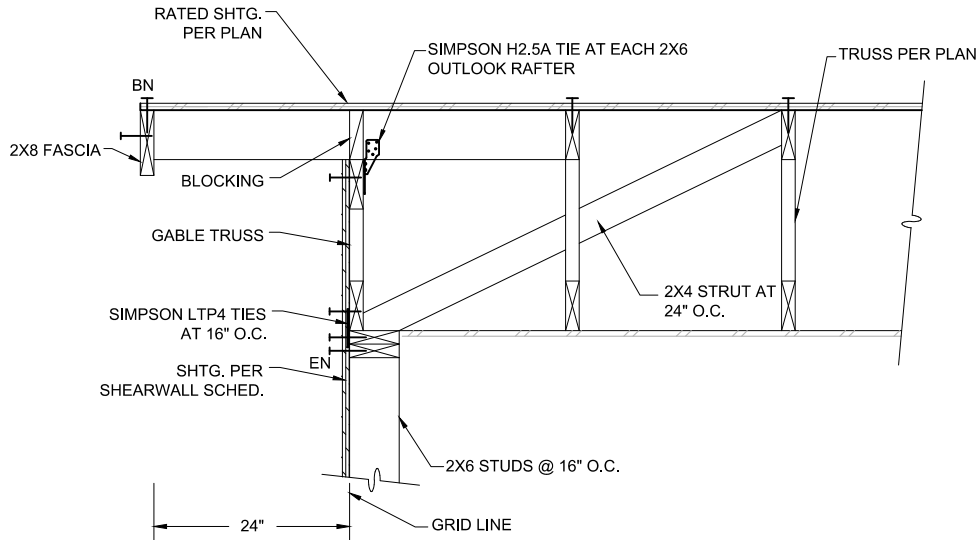
No.	DATE	REVISION	BY	APPRVD.

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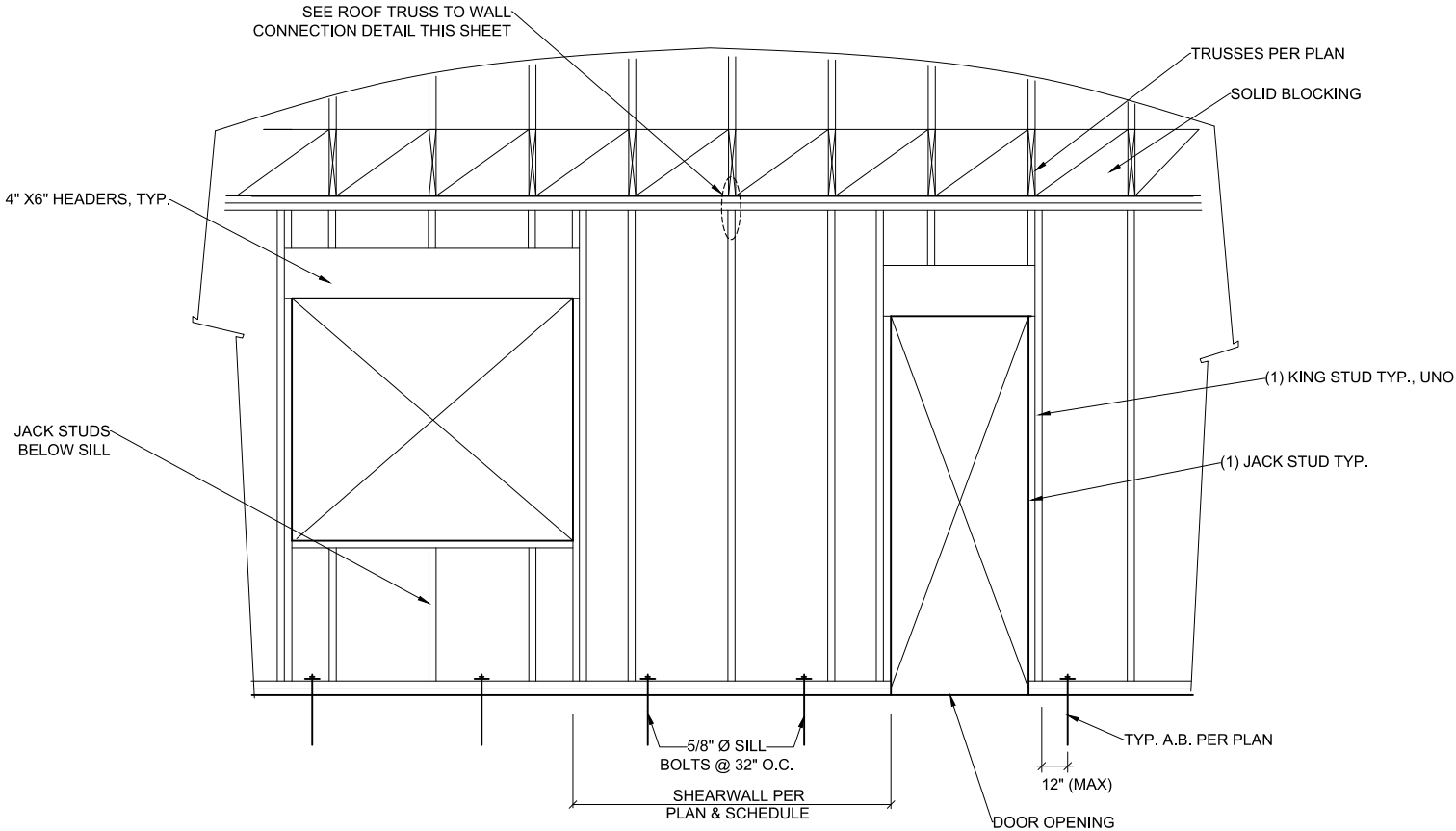
- 1. WHERE NO STUD TO STUD NAILING IS INDICATED, NAIL STUDS TOGETHER w/ 16d @ 12"o.c., TYP.
- 2. REF. PLANS FOR STUD SIZE & SPACING



1 ROOF TRUSS TO WALL CONNECTION
C206 SCALE: NTS



2 GABLE END DETAIL
C206 SCALE: NTS



3 TYPICAL STUD FRAMING
C206 SCALE: NTS

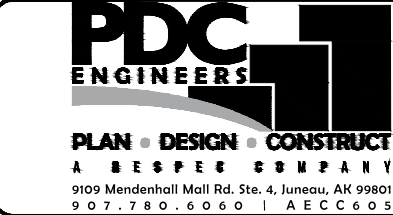
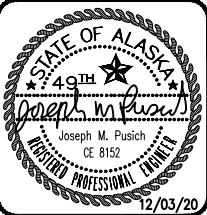
FRAMING NAILING SCHEDULE			
CONNECTION	NAILING	CONNECTION	NAILING
TOP PLATE TO STUD, END NAIL	2x4 (2)- 16d 2x6 (3)- 16d 1 3/4"x5 1/2" LVL (3)-16d 1 3/4"x7 1/4" LVL (4)-16d 1 3/4"x9 1/4" LVL (5)-16d 1 3/4"x11 1/4" LVL (6)-16d	TOP PLATE LAPS (4'-0" MINIMUM)	16d AT 6" O.C.
		BUILT-UP HEADERS AND BEAMS	16d AT 16" O.C. ALONG TOP AND BOTTOM EDGE
		BUILT-UP COLUMNS BELOW BEAMS, FACE NAIL	16d AT 16" O.C. - EACH FACE
STUD TO SILL PLATE, END NAIL	2x4 (2)- 16d 2x6 (3)- 16d 1 3/4"x5 1/2" LVL (3)-16d 1 3/4"x7 1/4" LVL (4)-16d 1 3/4"x9 1/4" LVL (5)-16d 1 3/4"x11 1/4" LVL (6)-16d	BUILT-UP CORNER STUDS (3 STUDS MINIMUM)	16d AT 24" O.C.
		BACKING AND BLOCKING AT TRUSSES AND 2x FRAMING, END NAIL OR TOE NAIL	(2)- 16d EACH END
DOUBLE SILL PLATES, FACE NAIL (STAGGER)	10d AT 12" O.C.	BACKING AND BLOCKING AT I-JOIST FRAMING	SIMPSON Z2 OR EQUAL AT EACH END [W/(4)-10dx1 1/2" NAILS]
DOUBLE STUDS, FACE NAIL (STAGGER)	10d AT 12" O.C. - EACH FACE		
DOUBLE TOP PLATES, FACE NAIL	16d AT 24" O.C.		
TOP PLATES AT WALL INTERSECTIONS, FACE NAIL	(2)- 16d		

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DESIGN MSM
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FILE:

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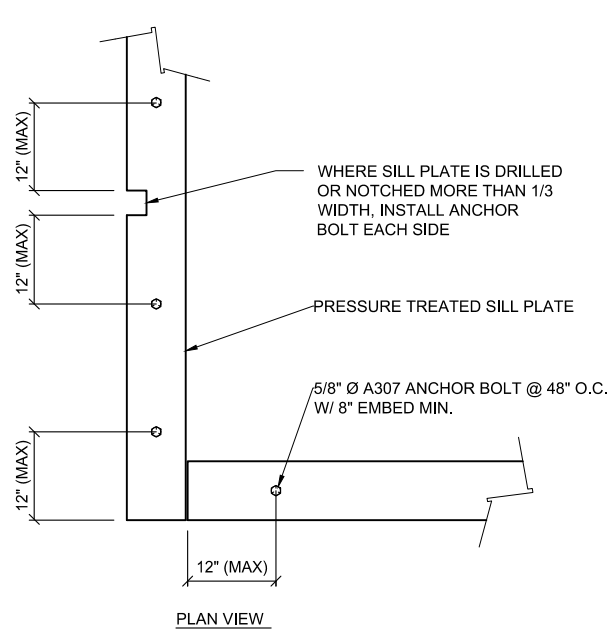
DELTA DRIVE
SUBDIVISION
JUNEAU, AK



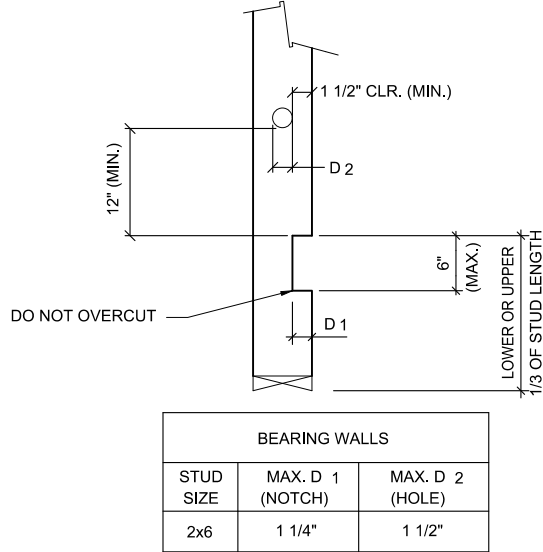
WATER METER
ENCLOSURE DETAILS

DATE: Dec 03, 2020
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SHEET
C206

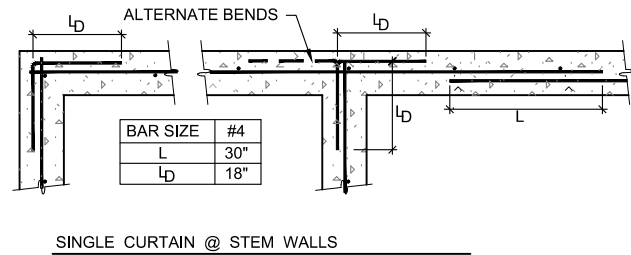
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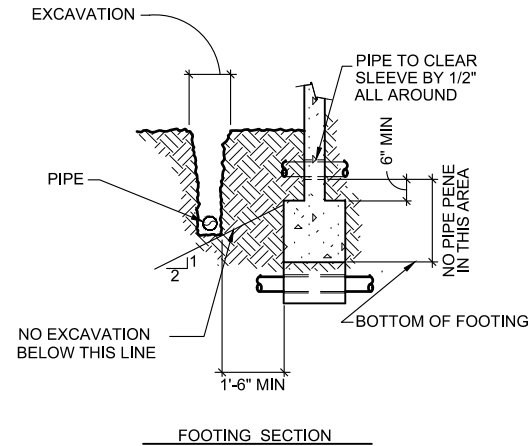
1 SILL PLATE BOLTING TO CONCRETE
C207 SCALE: NTS



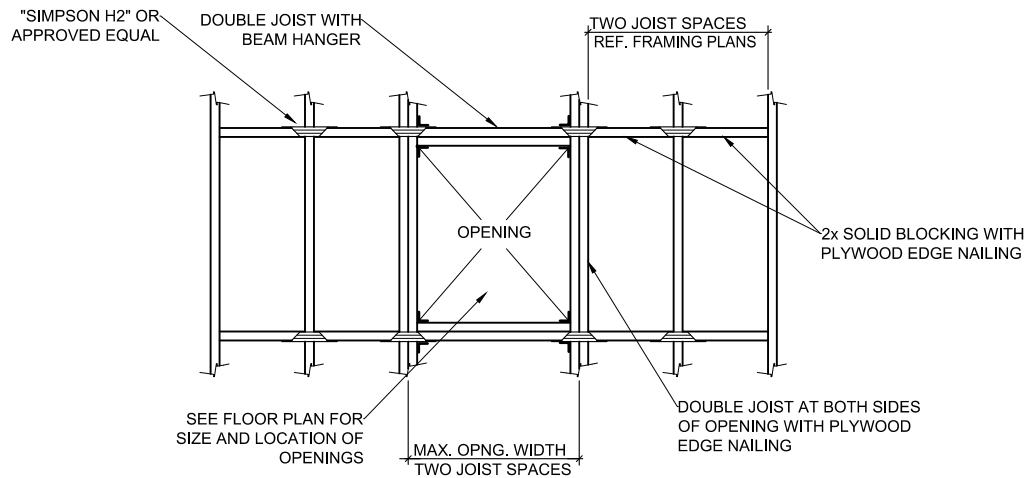
2 ALLOWABLE HOLES AND NOTCHES IN STUDS
C207 SCALE: NTS



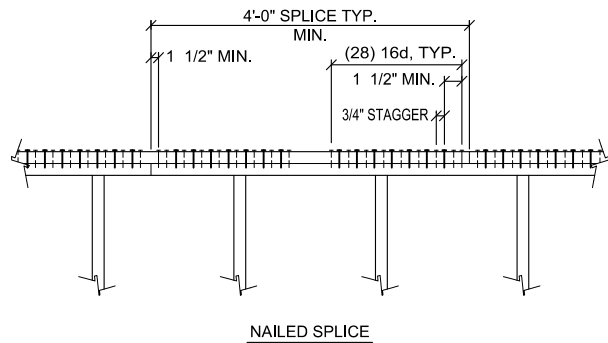
3 WALL & FOOTING REINFORCING AT CORNERS & INTERSECTIONS
C207 SCALE: NTS



4 PIPES & TRENCHES AT FOUNDATIONS
C207 SCALE: NTS

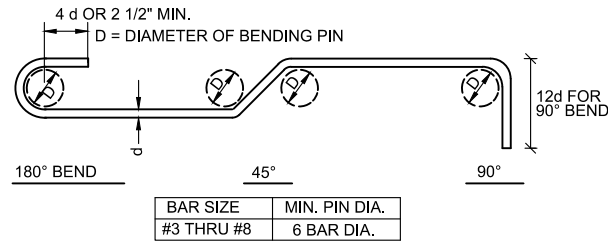


5 TYP. OPENINGS IN FLOORS AND ROOF
C207 SCALE: NTS



- NOTES:
1. MINIMUM PLATE SPLICE IS (28) 16d EA. SIDE OF EA. PLATE JOINT. MSTC78 IS ALTERNATE.
 2. STAGGER NAILS IN 2 ROWS.
 3. OCCURS AT TOP PLATES UNDER ROOF.

6 TYPICAL PLATE SPICE
C207 SCALE: NTS



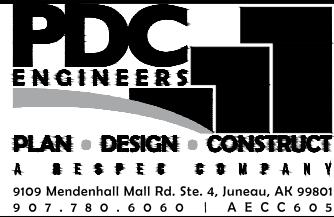
- LEGEND (FOR REINF. BENDS NOT SHOWN TO SCALE)
- DENOTES 90° BEND IN THE PLANE OF THE DWG.
 - DENOTES 90° BEND PERPENDICULAR TO THE PLANE OF THE DWG.
 - DENOTES BEND PERPENDICULAR TO THE PLANE OF THE DWG.
 - DENOTES BEND IN THE PLANE OF THE DWG.
 - DENOTES OFFSET IN THE PLANE OF THE DWG.

7 STANDARD HOOKS AND BENDS
C207 SCALE: NTS

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DELTA DRIVE
SUBDIVISION
JUNEAU, AK

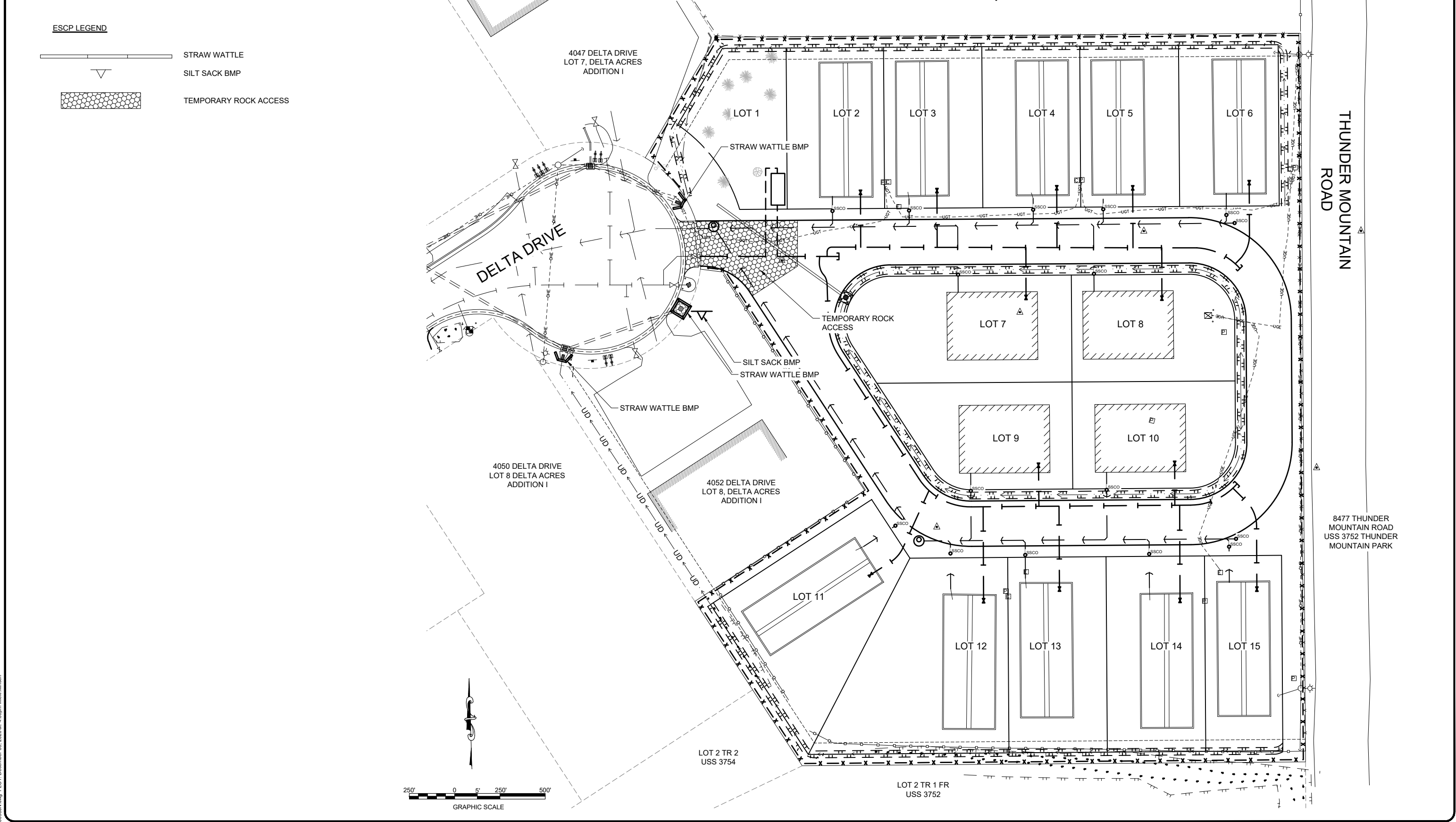


WATER METER
ENCLOSURE DETAILS

DATE: Dec 03, 2020
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SHEET
C207

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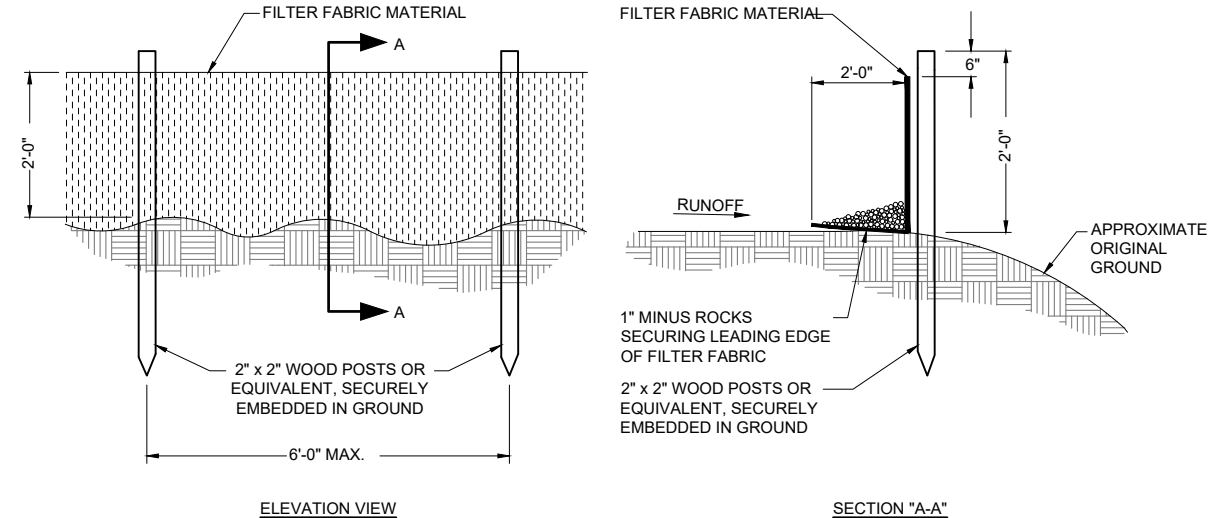
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No.		DATE	REVISION	BY	APRVD.																											
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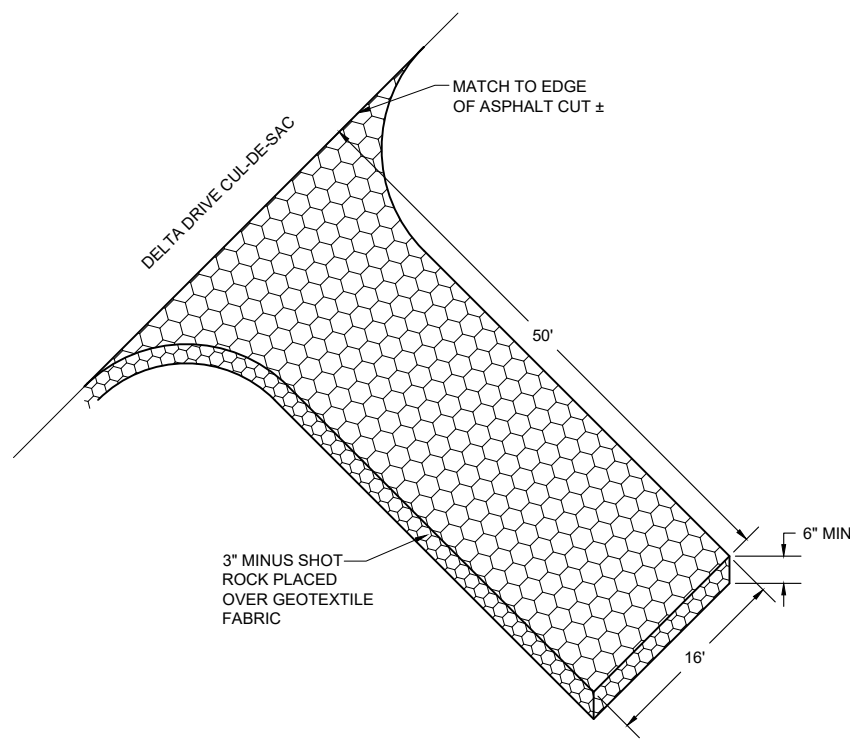
EROSION & SEDIMENT CONTROL PLAN

SHEET	C300
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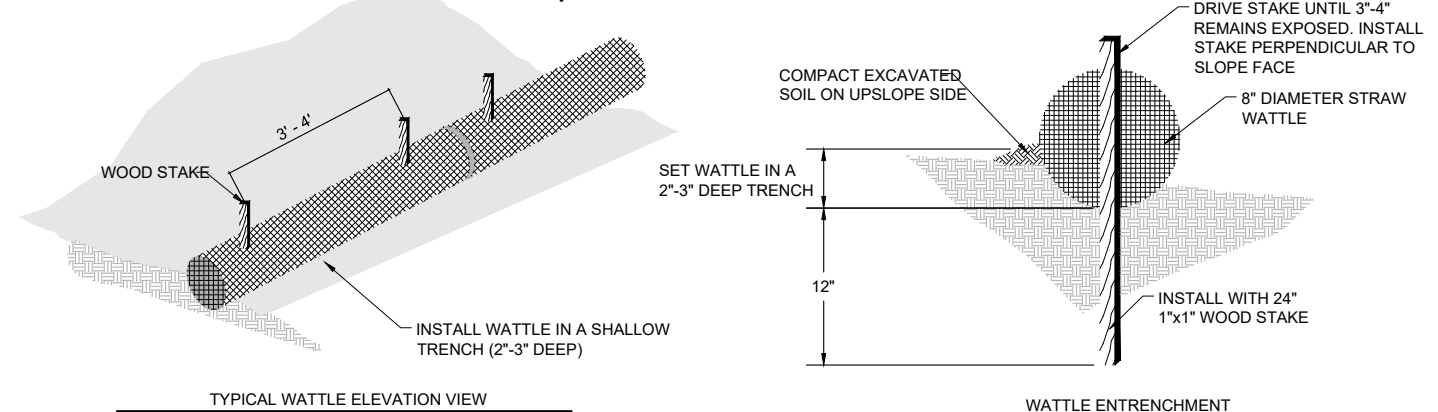


1 SILT FENCE DETAIL
C301 SCALE: NTS



- NOTES:**
1. MAINTENANCE OF TEMPORARY ROCK ACCESS SHALL INCLUDE REPLACING ROCK AS REQUIRED TO MAINTAIN AN EFFECTIVE AREA FOR SHEDDING EARTHEN MATERIAL FROM CONSTRUCTION EQUIPMENT AND PREVENTING MATERIAL FROM GETTING TRACKED ON TO DELTA DRIVE.
 2. CLEAN AND REMOVE ALL TRACKED MATERIAL (MUD, SILT, DEBRIS, ETC.) OFF OF THE PROJECT SITE DAILY AND DISPOSE OF MATERIAL AT AN APPROVED DISPOSAL LOCATION.
 3. TEMPORARY ROCK ACCESS APPROACHES SHALL BE INSTALLED AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN OR AS DIRECTED BY THE ENGINEER.

3 TEMPORARY ROCK ACCESS
C301 SCALE: NTS



- WATTLE NOTES:**
1. BEGIN AT THE LOCATION WHERE THE WATTLE IS TO BE INSTALLED BY EXCAVATING A 2'-3" DEEP x 9" WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UP-SLOPE FROM THE ANCHOR TRENCH.
 2. PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE UPHILL SIDE. ADJACENT WATTLES SHOULD TIGHTLY ABUT EACH OTHER.
 3. SECURE THE WATTLE WITH 24" STAKES EVERY 3'-4" AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE LEAVING AT LEAST 3'-4" OF STAKE EXTENDING ABOVE THE WATTLE. STAKES SHOULD BE DRIVEN PERPENDICULAR TO SLOPE FACE.

2 STRAW WATTLE IN GROUND DETAIL
C301 SCALE: NTS

- EROSION AND SEDIMENT CONTROL NOTES:**
1. EROSION AND SEDIMENT CONTROL PLANS (E.S.C.P.) SHOWN ARE INTENDED AS A MINIMUM LEVEL OF EROSION CONTROL ONLY. THE E.S.C.P. IS TO BE USED BY THE CONTRACTOR TO DEVELOP A SITE SPECIFIC STORM WATER POLLUTION PREVENTION PLAN (SWPPP). ALL SEDIMENTATION FROM ON SITE DRAINAGE AND GRADING SHALL BE CONTAINED ON SITE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DAMAGE TO ADJACENT PROPERTIES AND STREAMS FROM CONSTRUCTION RELATED EROSION AND SILTATION DURING THE COURSE OF WORK. ANY DAMAGE RESULTING FROM SUCH EROSION AND SILTATION SHALL BE CORRECTED AT THE EXPENSE OF THE CONTRACTOR.
 2. ALL EROSION CONTROL/SEDIMENTATION CONTROL BARRIERS SHALL BE IN PLACE PRIOR TO COMMENCING EXCAVATION OR FILLING OPERATIONS.
 3. TEMPORARY EROSION CONTROL SYSTEM WILL NOT BE REMOVED UNTIL GERMINATION OF SEEDING AND NO EROSION/SEDIMENT PROBLEMS EXIST.
 4. COLLECTED SEDIMENT WILL BE DISPOSED OF OFF SITE AT AN EXISTING APPROVED DUMPSITE. COLLECTED SEDIMENT MAY NOT BE USED AS EMBANKMENT.
 5. DEWATERING OF WORK AREAS BY PUMPING SHALL BE IMPLEMENTED TO REDUCE THE PROJECTS WATER QUALITY IMPACTS. THE PUMP DISCHARGE NEEDS TO BE FILTERED THROUGH SEDIMENT CONTROL DEVICES SUCH AS "DIRTBAG" OR SEDIMENT CONTROL STRUCTURES BEFORE IT CAN ENTER FISH HABITATS AT ANY POINT.
 6. CONTRACTOR SHALL KEEP CLEAN AND DISPOSE OF ALL EARTHEN MATERIAL TRACKED ONTO DELTA DRIVE. THIS SHALL INCLUDE SWEEPING WITH POWER BROOM, VACUUMING AND WATERING ON A DAILY BASIS DURING HAULING ACTIVITY OR MORE FREQUENTLY AS DIRECTED BY THE ENGINEER.

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DESIGN MSM	DELTA DRIVE SUBDIVISION JUNEAU, AK	BICKNELL INC. QUALITY CONSTRUCTION	STATE OF ALASKA 49th Joseph M. Pusich CE 8152 12/03/20	PDC ENGINEERS PLAN • DESIGN • CONSTRUCT A BESPEE COMPANY 9109 Mendenhall Mall Rd. Ste. 4, Juneau, AK 99801 907.780.6060 AECC605	EROSION & SEDIMENT CONTROL DETAILS	DATE: Dec 03, 2020
DRAWN MSM						PDC No. 20098JN
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No.	DATE	REVISION	BY	APRVD.	SHEET	C301

**TECHNICAL MEMORANDUM**

Client #	Bicknell Inc.	Date	10/2/2020
PDC #	20098JN	Prepared by	Sean Kelly, EIT
Project Name	Delta Drive Subdivision	Reviewed by	Mark Pusich, PE
Subject	Delta Drive Subdivision – Water Main Branch Sizing Memo		

Topic	Discussion
Introduction	Bicknell Inc. is the owner of Delta Drive subdivision and is proposing the replacement of a water main servicing the subdivisions lots. The subdivision includes 15 lots, 14 of which will have single family structures installed on the lots. The proposed water main installation will involve connecting a water submain off of the new 8" HDPE water line.
Existing Conditions	The existing subdivision includes 10 modular homes on concrete foundations with buildings previously removed. The inner island of the subdivision has four lots that have been recently cleared. The existing homes were served with ¾" water lines from the 2" main.
Peak Design Flow	The Delta Drive Subdivision is not a new development and is residential, so the flow design is straight forward. Testing data from the CBJ fire hydrant located at the cul-de-sac entrance of the subdivision was provided by the CBJ Water Department. Fixture count and pipe sizes were determined with the 2012 Uniform Plumbing Code, IAPMO/ANSI UPC1-2012.
Assumptions	For the design of the water main servicing the Delta Drive Subdivision several assumptions were made. The following are the assumptions made for this design: • Each home has two bathrooms which include shower with tub, sink and toilet. • Each home has a washing machine. • Each home has one hose bib. • Each home has a kitchen sink.
Fixture Count & Pipe Sizing	From the 2012 Uniform Plumbing Code, the following fixture counts (FC) were obtained from table 610.3 (attached) for private units:

Transforming Challenges into Solutions.

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Technical Memo
October 1, 2020
Page 2

Topic	Discussion
	• Lavatory (x2) – 2.0 FC • Water Closet, 1.6 GPF Gravity Tank (x2) – 5.0 FC • Bathtub or Combination Bath/Shower (x2) – 8.0 FC • Clothes Washer – 4.0 FC • Kitchen, domestic with or without dishwasher – 1.5 FC • Hose Bibb – 2.5
	These fixtures bring the total fixture count per residential unit to 23 FC.
	The available static pressure is 64 psi, provided by CBJ, at Delta Drive fire hydrant.
	The longest line necessary from the tee off of the 8" line is 250'.
	Due to the configuration of the water main having two branches off of the 8" water main, the total fixture count is determined with seven units instead of the total 14.
	Total fixture count (TFC) for seven units is as follows,
	$TFC = \left(\frac{23 FC}{UNIT} \right) * 7 UNITS = 161 FC$
Design Recommendation	Using Table 610.4 from the 2012 Uniform Plumbing Code (attached), the minimum pipe size for the water branches is two-inch pipe. It is recommended that two-inch pipe be used for the water main servicing the Delta Drive Subdivision.

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**TABLE 610.3
WATER SUPPLY FIXTURE UNITS (WSFU) AND MINIMUM FIXTURE BRANCH PIPE SIZES³**

APPLIANCES, APPURTENANCES OR FIXTURES ²	MINIMUM FIXTURE BRANCH PIPE SIZE ^{1,4} (Inches)	PRIVATE	PUBLIC	ASSEMBLY ⁵
Bathtub or Combination Bath/Shower (fill)	½	4.0	4.0	—
¾ inch Bathtub Fill Valve	¾	10.0	10.0	—
Bidet	½	1.0	—	—
Clothes Washer	½	4.0	4.0	—
Dental Unit, cuspidor	½	—	1.0	—
Dishwasher, domestic	½	1.5	1.5	—
Drinking Fountain or Water Cooler	½	0.5	0.5	0.75
Hose Bibb	½	2.5	2.5	—
Hose Bibb, each additional ⁸	½	1.0	1.0	—
Lavatory	½	1.0	1.0	1.0
Lawn Sprinkler, each head ⁵	—	1.0	1.0	—
Mobile Home, each (minimum)	—	12.0	—	—
Sinks	—	—	—	—
Bar	½	1.0	2.0	—
Clinic Faucet	½	—	3.0	—
Clinic Flushometer Valve with or without faucet	1	—	8.0	—
Kitchen, domestic with or without dishwasher	½	1.5	1.5	—
Laundry	½	1.5	1.5	—
Service or Mop Basin	½	1.5	3.0	—
Washup, each set of faucets	½	—	2.0	—
Shower, per head	½	2.0	2.0	—
Urinal, 1.0 GPF Flushometer Valve	¾	See Footnote ⁷		—
Urinal, greater than 1.0 GPF Flushometer Valve	¾	See Footnote ⁷		—
Urinal, flush tank	½	2.0	2.0	3.0
Wash Fountain, circular spray	¾	—	4.0	—
Water Closet, 1.6 GPF Gravity Tank	½	2.5	2.5	3.5
Water Closet, 1.6 GPF Flushometer Tank	½	2.5	2.5	3.5
Water Closet, 1.6 GPF Flushometer Valve	1	See Footnote ⁷		—
Water Closet, greater than 1.6 GPF Gravity Tank	½	3.0	5.5	7.0
Water Closet, greater than 1.6 GPF Flushometer Valve	1	See Footnote ⁷		—

For SI units: 1 inch = 25 mm

Notes:

¹ Size of the cold branch pipe, or both the hot and cold branch pipes.

² Appliances, appurtenances, or fixtures not referenced in this table shall be permitted to be sized by reference to fixtures having a similar flow rate and frequency of use.

³ The listed fixture unit values represent their load on the cold water building supply. The separate cold water and hot water fixture unit value for fixtures having both hot and cold water connections shall be permitted to be each taken as three-quarter of the listed total value of the fixture.

⁴ The listed minimum supply branch pipe sizes for individual fixtures are the nominal (I.D.) pipe size.

⁵ For fixtures or supply connections likely to impose continuous flow demands, determine the required flow in gallons per minute (gpm) (L/s), and add it separately to the demand in gpm (L/s) for the distribution system or portions thereof.

⁶ Assembly [Public Use (See Table 422.1)].

⁷ Where sizing flushometer systems, see Section 610.10.

⁸ Reduced fixture unit loading for additional hose bibbs is to be used where sizing total building demand and for pipe sizing where more than one hose bibb is supplied by a segment of water distribution pipe. The fixture branch to each hose bibb shall be sized on the basis of 2.5 fixture units.

TABLE 610.4
FIXTURE UNIT TABLE FOR DETERMINING WATER PIPE AND METER SIZES

METER AND STREET SERVICE (Inches)	BUILDING SUPPLY AND BRANCHES (Inches)	MAXIMUM ALLOWABLE LENGTH (feet)														
		40	60	80	100'	150	200	250	300	400	500	600	700	800	900	1000
PRESSURE RANGE - 30 to 45 psi ¹																
3/4	1/2 ²	6	5	4	3	2	1	1	1	0	0	0	0	0	0	0
3/4	3/4	16	16	14	12	9	6	5	5	4	4	3	2	2	2	1
3/4	1	29	25	23	21	17	15	13	12	10	8	6	6	6	6	6
1	1	36	31	27	25	20	17	15	13	12	10	8	6	6	6	6
3/4	1 1/4	36	33	31	28	24	23	21	19	17	16	13	12	12	11	11
1	1 1/4	54	47	42	38	32	28	25	23	19	17	14	12	12	11	11
1 1/2	1 1/4	78	68	57	48	38	32	28	25	21	18	15	12	12	11	11
1	1 1/2	85	84	79	65	56	48	43	38	32	28	26	22	21	20	20
1 1/2	1 1/2	150	124	105	91	70	57	49	45	36	31	26	23	21	20	20
2	1 1/2	151	129	129	110	80	64	53	46	38	32	27	23	21	20	20
1	2	85	85	85	85	85	85	82	80	66	61	57	52	49	46	43
1 1/2	2	220	205	190	176	155	138	127	120	104	85	70	61	57	54	51
2	2	370	327	292	265	217	185	164	147	124	96	70	61	57	54	51
2	2 1/2	445	418	390	370	330	300	280	265	240	220	198	175	158	143	133
PRESSURE RANGE - 46 to 60 psi ¹																
3/4	1/2 ²	7	7	6	5	4	3	2	2	1	1	1	0	0	0	0
3/4	3/4	20	20	19	17	14	11	9	8	6	5	4	4	3	3	3
3/4	1	39	39	36	33	28	23	21	19	17	14	12	10	9	8	8
1	1	39	39	39	36	30	25	23	20	18	15	12	10	9	8	8
3/4	1 1/4	39	39	39	39	39	39	34	32	27	25	22	19	19	17	16
1	1 1/4	78	78	76	67	52	44	39	36	30	27	24	20	19	17	16
1 1/2	1 1/4	78	78	78	78	66	52	44	39	33	29	24	20	19	17	16
1	1 1/2	85	85	85	85	85	85	80	67	55	49	41	37	34	32	30
1 1/2	1 1/2	151	151	151	151	128	105	90	78	62	52	42	38	35	32	30
2	1 1/2	151	151	151	151	150	117	98	84	67	55	42	38	35	32	30
1	2	85	85	85	85	85	85	85	85	85	85	85	85	85	83	80
1 1/2	2	370	370	340	318	272	240	220	198	170	150	135	123	110	102	94
2	2	370	370	370	370	368	318	280	250	205	165	142	123	110	102	94
2	2 1/2	654	640	610	580	535	500	470	440	400	365	335	315	285	267	250
PRESSURE RANGE - Over 60 psi ¹																
3/4	1/2 ²	7	7	7	6	5	4	3	3	2	1	1	1	1	1	0
3/4	3/4	20	20	20	20	17	13	11	10	8	7	6	6	5	4	4
3/4	1	39	39	39	39	35	30	27	24	21	17	14	13	12	12	11
1	1	39	39	39	39	38	32	29	26	22	18	14	13	12	12	11
3/4	1 1/4	39	39	39	39	39	39	39	39	34	28	26	25	23	22	21
1	1 1/4	78	78	78	78	74	62	53	47	39	31	26	25	23	22	21
1 1/2	1 1/4	78	78	78	78	78	74	65	54	43	34	26	25	23	22	21
1	1 1/2	85	85	85	85	85	85	85	85	81	64	51	48	46	43	40
1 1/2	1 1/2	151	151	151	151	151	151	130	113	88	73	51	51	46	43	40
2	1 1/2	151	151	151	151	151	151	142	122	98	82	64	51	46	43	40
1	2	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85
1 1/2	2	370	370	370	370	360	335	305	282	244	212	187	172	153	141	129
2	2	370	370	370	370	370	370	370	340	288	245	204	172	153	141	129
2	2 1/2	654	654	654	654	654	650	610	570	510	460	430	404	380	356	329

For SI units: 1 inch = 25 mm, 1 foot = 304.8 mm, 1 pound-force per square inch = 6.8947 kPa

Notes:

¹ Available static pressure after head loss.

² Building supply, not less than 3/4 of an inch (20 mm) nominal size.

From: Loni VanKirk <Loni.VanKirk@juneau.org>
Sent: Monday, September 28, 2020 8:18 AM
To: Kevin Puustinen <KevinPuustinen@pdceng.com>
Subject: RE: Hydrant Test Data - Delta Drive

CAUTION: This email originated from outside of the organization. Exercise caution when viewing attachments, clicking links, or responding to requests.

ACROSS FROM 4045 DELTA
DR.

MUELLER

WET

64

1110/48

8/13/2019

Kevin,

Here is the Data you requested.

Static PSI

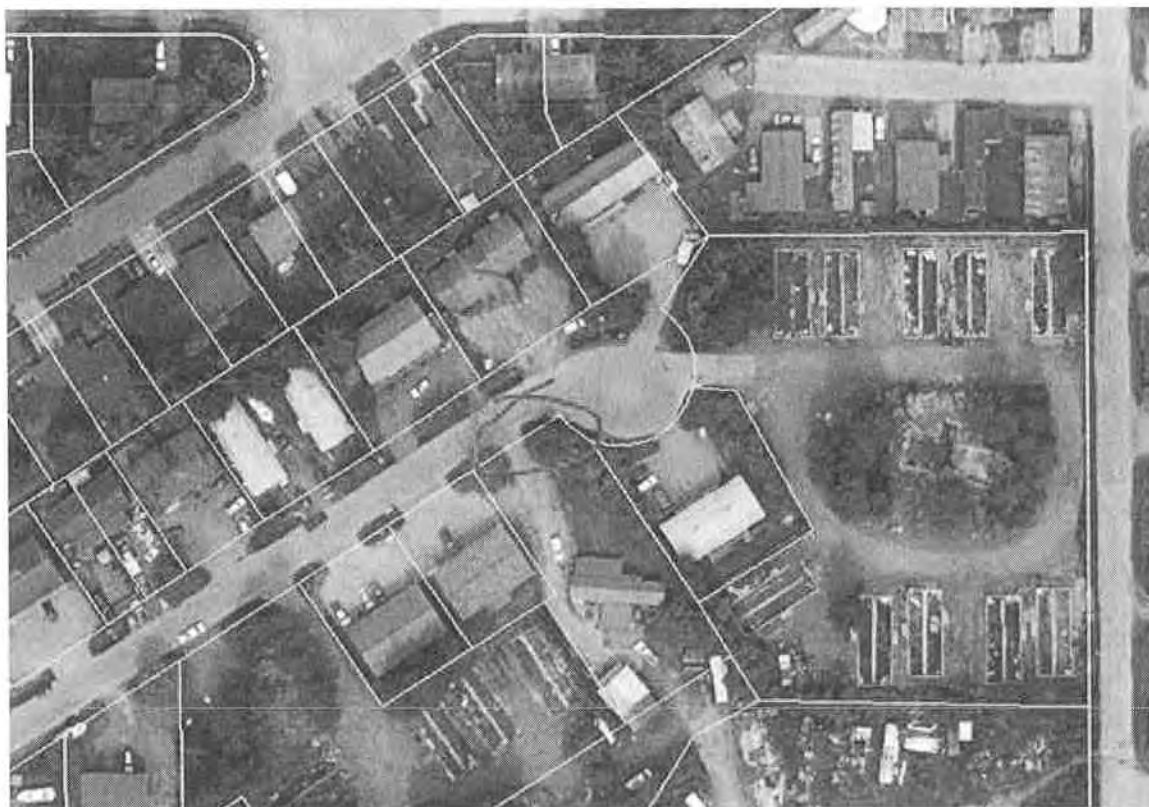
Flow/residual PSI

Loni Van Kirk
Distribution Senior Operator
CBJ Water Utility
907-723-4975

From: Kevin Puustinen <KevinPuustinen@pdceng.com>
Sent: Wednesday, September 23, 2020 10:06 AM
To: Loni VanKirk <Loni.VanKirk@juneau.org>
Subject: Hydrant Test Data - Delta Drive

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Hi Loni – Can you please send me your most recent test data for the hydrant in the cul-de-sac on Delta Drive?



Thanks,

Kevin Puustinen, PE

Civil Engineer

PDC ENGINEERS

A RESPEC COMPANY

9109 Mendenhall Mall Rd. Ste 4, Juneau, Alaska 99801 | 907.780.6060

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DRAINAGE REPORT FOR DELTA DRIVE SUBDIVISION JUNEAU, ALASKA

Prepared For:

Bicknell Development

2275 Brandy Lane, Suite 1
Juneau, AK 99801

Prepared By:

PDC Engineers

9109 Mendenhall Mall Road Suite 4
Juneau, AK 99801

Date: November 20, 2020
PDC Project No. 20098JN

1.0 PROJECT OVERVIEW

1.1 Project Description

Bicknell Inc., is proposing to redevelop an existing residential property. The project is located off the cul-de-sac at the end of Delta Drive. The property previously had 10 double wide mobile homes and a structure in the center of the property. The mobile homes and the center structure have been removed and the mobile home concrete foundations remain. The property has been divided into 15 lots. Lot 1 is the parent lot, lots 2 through 6 make up the northern lots. The center of the property has been divided into four lots to create lots 7 through 10. Lots 11 through 15 make up the southern lots.

1.2 Project Duration

The developer (Bicknell) will begin construction in the spring of 2021. The subdivision development is anticipated to occur over a period of approximately 3 months.

2.0 SOIL INFORMATION

Soil conditions present in the project area consists of a vegetated surface layer underlain by a soil matrix of sand, gravels and silt material. The ground water is located approximately 3 feet below the surface as confirmed by excavated test pits. The project area is fairly flat.

3.0 STORM WATER SYSTEM

Currently drainage leaves the site through a 12" CMP culvert located at the end of Delta Drive on the northeast side of the cul-de-sac.

The storm water system along Delta Drive has been proposed to be upgraded per CBJ Contract BE21-028 "Delta Drive Reconstruction." Work is scheduled for spring/summer 2021. For the purpose of this report, the proposed culverts for Delta Drive Reconstruction were used for the analysis of the Delta Drive Subdivision project site.

Drainage from the proposed Delta Drive Subdivision project site will be discharged into the Delta Drive storm water system at three locations, the 12" CPP ditch culvert (Pipe P-1) on the northeast side of the Delta Drive cul-de-sac, the 12" CPP culvert (Pipe P-3) at the area drain on the southeast side of the cul-de-sac, and a 12" CPP ditch culvert (Pipe P-4) located on the southwestern side of the cul-de-sac where it meets the 10' drainage easement.

A drainage swale along the northern perimeter of the proposed project area will be

graded at 1.0% from the east to the west to then discharge in to Pipe P-1 at the northeast side of the Delta Drive cul-de-sac. Drainage from the swale around lots 7 through 10 will drain into a Type III catch basin where it will then flow through a 12" CPP pipe (Pipe P-2) to a ditch where it will leave the site through Pipe P-1 at the northeast side of the Delta Drive cul-de-sac.

A drainage swale along the southern perimeter of the proposed project area will be graded at 1.0% from east to west to an underdrain that runs along a 10' drainage easement to Pipe P-4 at the southwestern side of the Delta Drive cul-de-sac.

All of the discharge from the site would then meet at a catch basin on Delta Drive where it will be discharge through an 18" CPP culvert (Pipe P-5) to continue through the storm system.

Storm drain structures and piping would follow CBJ Standard Specifications and Standard Drawings for the development.

3.0 SITE RUNOFF CALCULATION METHOD:

A total of four catchment areas were analyzed representing the existing and proposed drainage conveyance systems relevant to the project. The catchment areas include: The existing 12" CPP culvert (Pipe P-1) that is located at the northeastern side of the Delta Drive cul-de-sac, the proposed 12" CPP culvert (Pipe P-2) that is located on the project site near the entrance to the subdivision, the existing 12" CPP culvert (Pipe P-3) that is located on the southeastern edge of the cul-de-sac, and the existing 12" CPP culvert (Pipe P-4) at the southwestern end of the cul-de-sac.

The catchment areas were determined using the proposed design model. A delineation of the areas can be found in Appendix A.

To calculate the site runoff we have elected to use the Rational Method. The Rational Method is most appropriate for evaluating drainage basins less than 10 acres. Appendix D of the "2010 CBJ Manual of Storm Water Best Management Practices" was utilized as a guide. The calculations and supporting documentation can be found in Appendix B, C, D & E of this report.

3.1 Anticipated Site Runoff (Q):

Using the Rational Method, the amount of stormwater runoff during the 25-year storm event per catchment area was determined. See Table 1.1 for results, the calculations can be found in Appendix B.

Table 1.1 Anticipated Site Runoff (Q):	
Catchment Area	Q (cfs)
Pipe P-1	1.03
Pipe P-2	0.94
Pipe P-3	0.42
Pipe P-4	0.74

3.2 Conveyance/Discharge Structure Capacities:

The capacity of the existing and proposed drainage systems was calculated using the Manning's Equation to determine if proposed 25-year storm even flows could be conveyed. See Table 1.2 below for results, calculations can be found in Appendix B.

Table 1.2 Conveyance/Discharge Structure Capacities:	
Catchment Area	Q (cfs)
Pipe P-1	2.57
Pipe P-2	2.34
Pipe P-3	2.59
Pipe P-4	14.51
Pipe P-5	6.16

Summary

Table 1.3 below compares anticipated 25-year runoff in the proposed and existing conveyance systems to their available hydraulic capacity.

Table 1.3 Comparison			
Drainage Basin	Anticipated Runoff Q (cfs)	Capacity Check	Available Capacity Q (cfs)
Pipe P-1	1.12	<	2.57
Pipe P-2	0.94	<	2.34
Pipe P-3	0.42	<	2.59
Pipe P-4	0.74	<	14.51
Pipe P-5	3.13	<	6.16

In summary our analysis shows that there is enough capacity in the existing and proposed drainage structures to handle flows from the altered drainage patterns as a result of the proposed Delta Drive Subdivision improvements.



11/20/2020

J. Mark Pusich, P.E.
Principal Civil Engineer
PDC Engineers

Appendices:

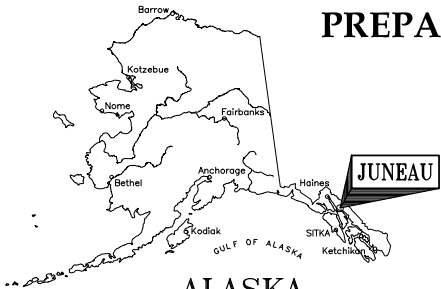
- A – Catchment Areas
- B – Rational Method
- C – Runoff Coefficient
- D – Time of Concentration
- E – Rainfall Intensity
- F – Existing & Proposed

Appendix A

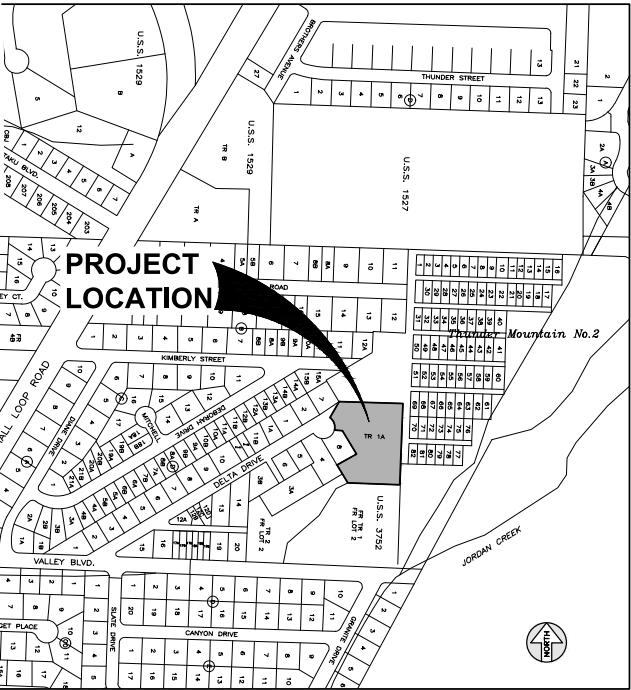
Catchment Areas

DELTA DRIVE SUBDIVISION CONSTRUCTION IMPROVEMENT PLAN DRAINAGE MAP

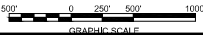
JUNEAU, ALASKA
PREPARED FOR BICKNELL, INC.



ALASKA



PROJECT LOCATION MAP



SHEET INDEX	
SHEET No.	DESCRIPTION
1	COVER SHEET
2	P-1: EXISTING 12" CPP CULVERT
3	P-2: PROPOSED 12" CPP CULVERT
4	P-3: EXISTING 12" CPP CULVERT
5	P-4: EXISTING 12" CPP CULVERT

DESIGN: XXX
DRAWN: XXX
CHECK: JUMP
APPROVED: JUMP
FILE:

No.	DATE	REVISION	BY	APRVD.

DELTA DRIVE
SUBDIVISION

JUNEAU, AK

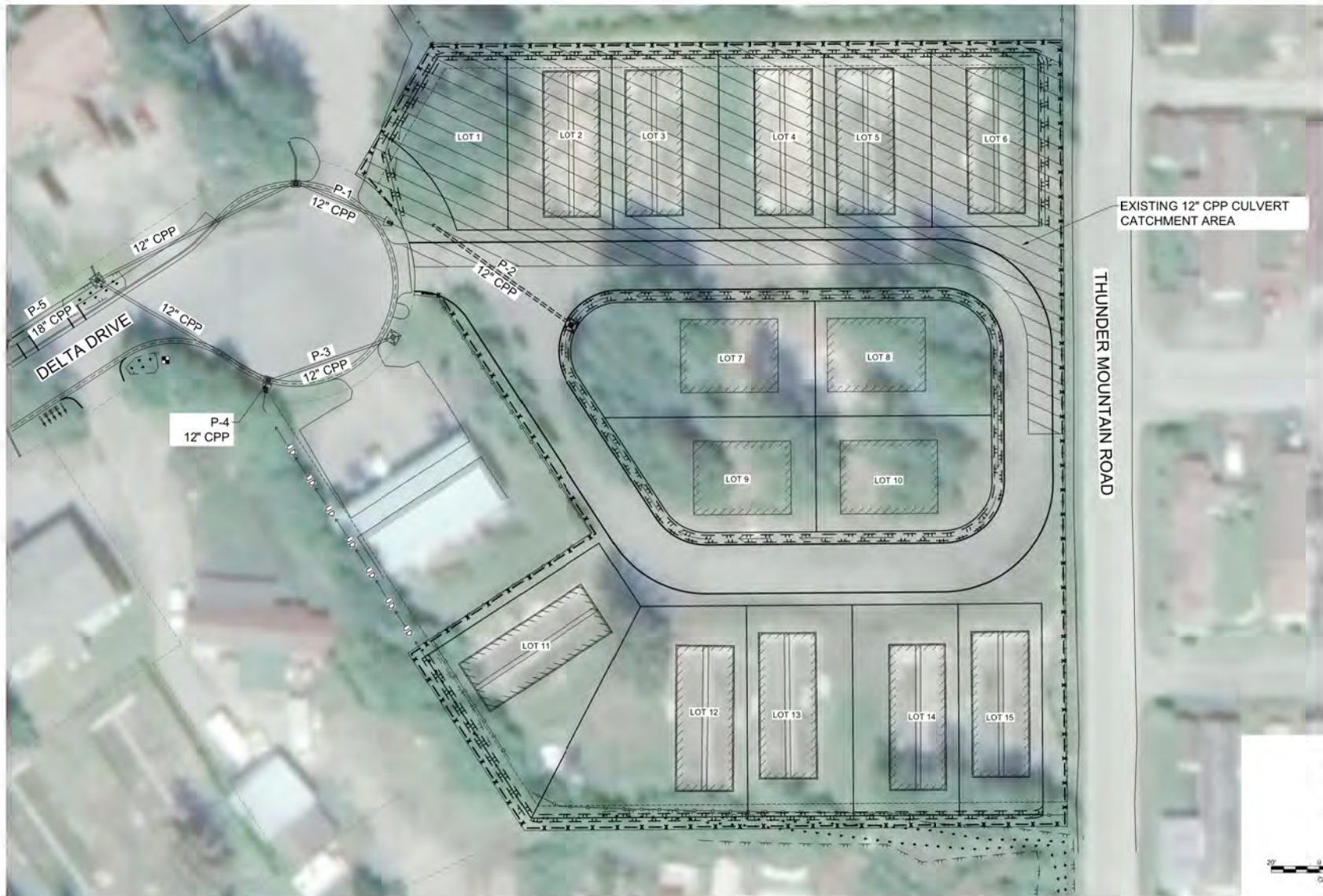


COVER SHEET

DATE: Nov 20, 2020
PDC No. 20098JUN

SHEET

1



DESIGN	XXX
DRAWN	XXX
CHECK	JMP
APPROVED	JMP
FILE	

NO.	DATE	REVISION	BY	APPROV.

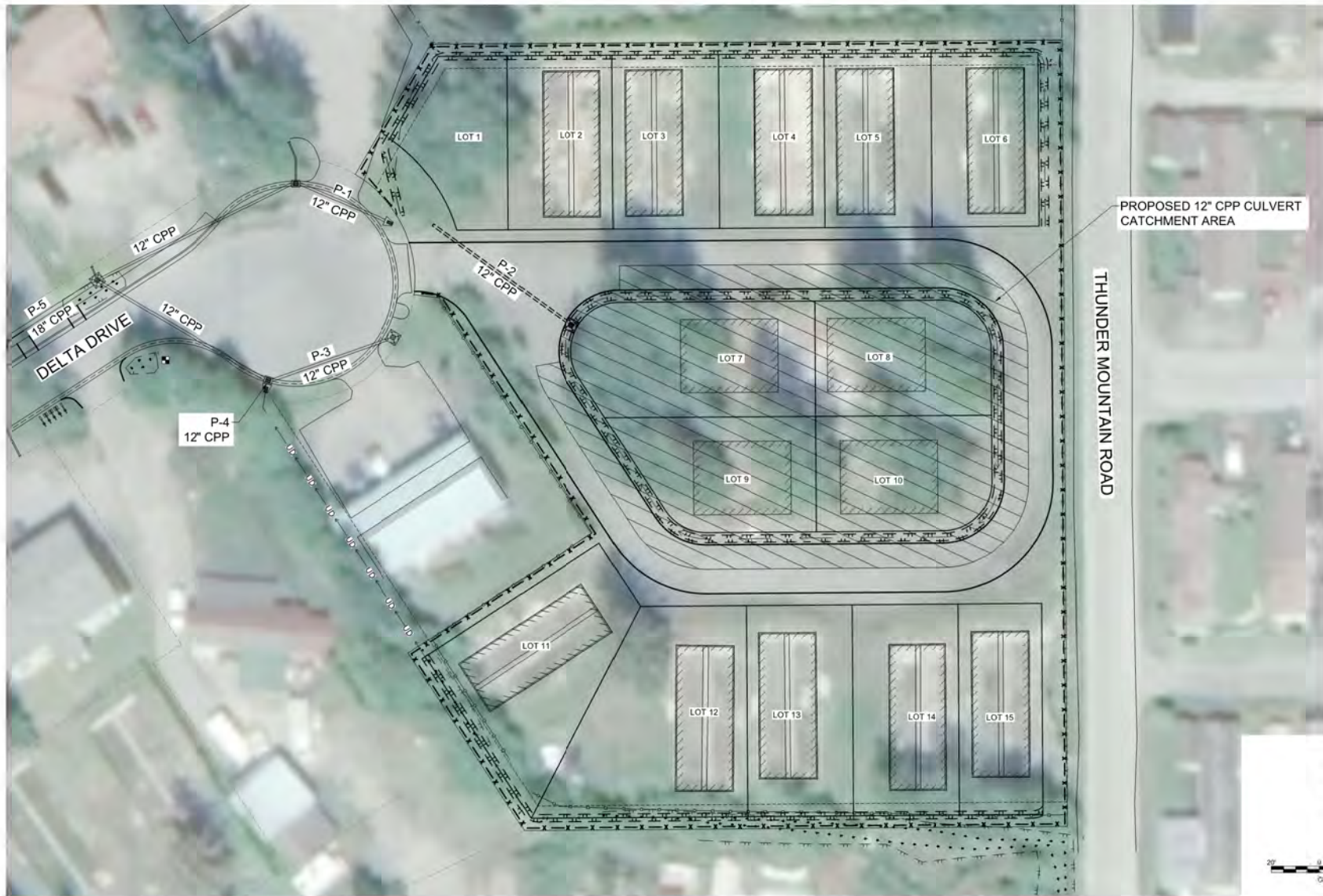
DELTA DRIVE
SUBDIVISION

JUNEAU, AK



P-1: EXISTING 12" CPP
CULVERT CATCHMENT AREA

DATE	March 25, 2021
PDC No.	2009JUN
SHEET	2



DESIGN: XXX			
DRAWN: XXX			
CHECK: JWP			
APPROVED: JWP			
FILE			
NO.	DATE	REVISION	BY
			APPROV.

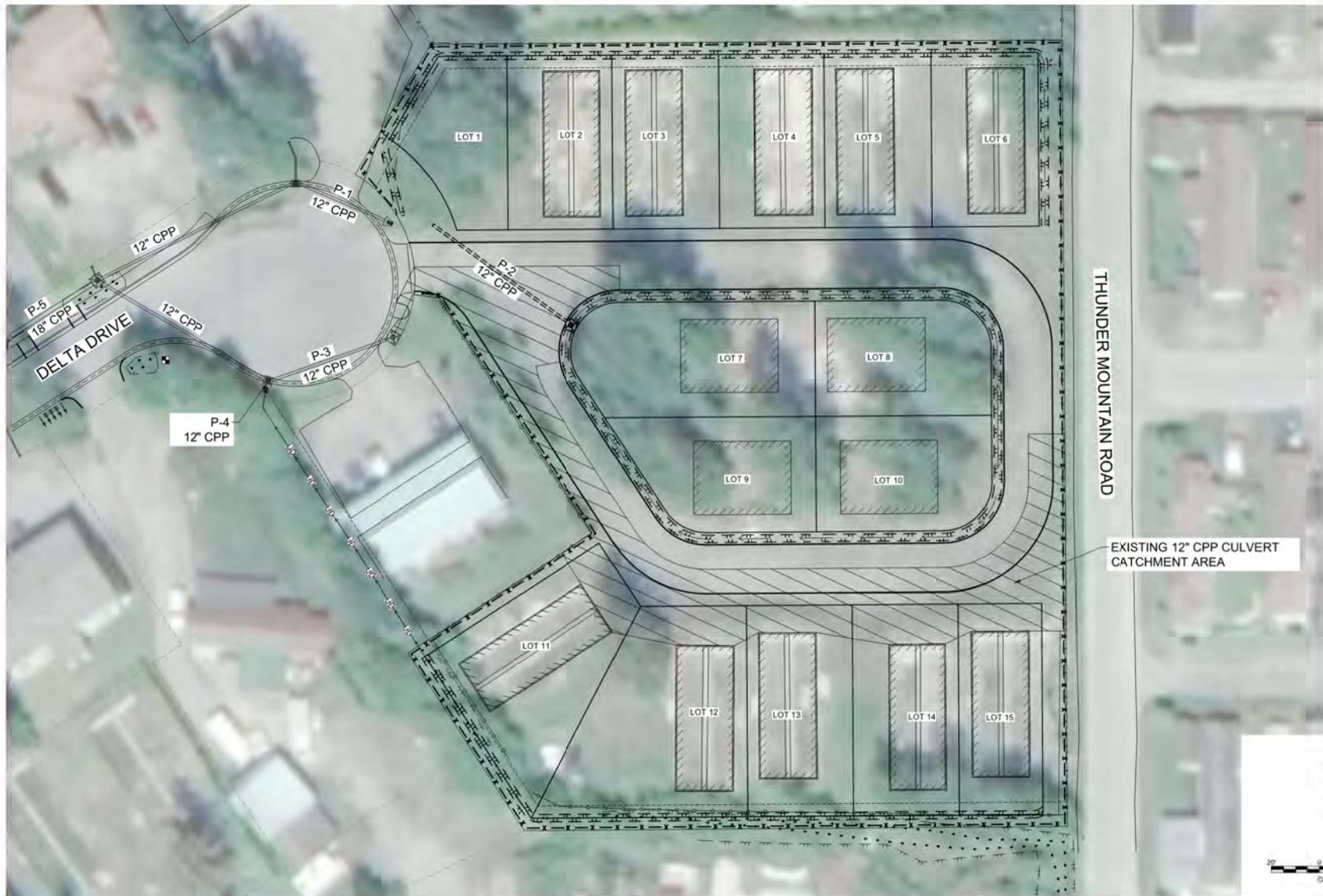
DELTA DRIVE
SUBDIVISION

JUNEAU, AK



P-2: PROPOSED 12" CPP
CULVERT CATCHMENT AREA

DATE: March 25, 2021
PDC No: 2009JUN
SHEET
3



DESIGN: XXX			
DRAWN: XXX			
CHECK: JWP			
APPROVED: JWP			
FILE:			

NO.	DATE	REVISION	BY	APPROV.

**DELTA DRIVE
SUBDIVISION**

JUNEAU, AK

**PDC
ENGINEERS**

PLAN • DESIGN • CONSTRUCT

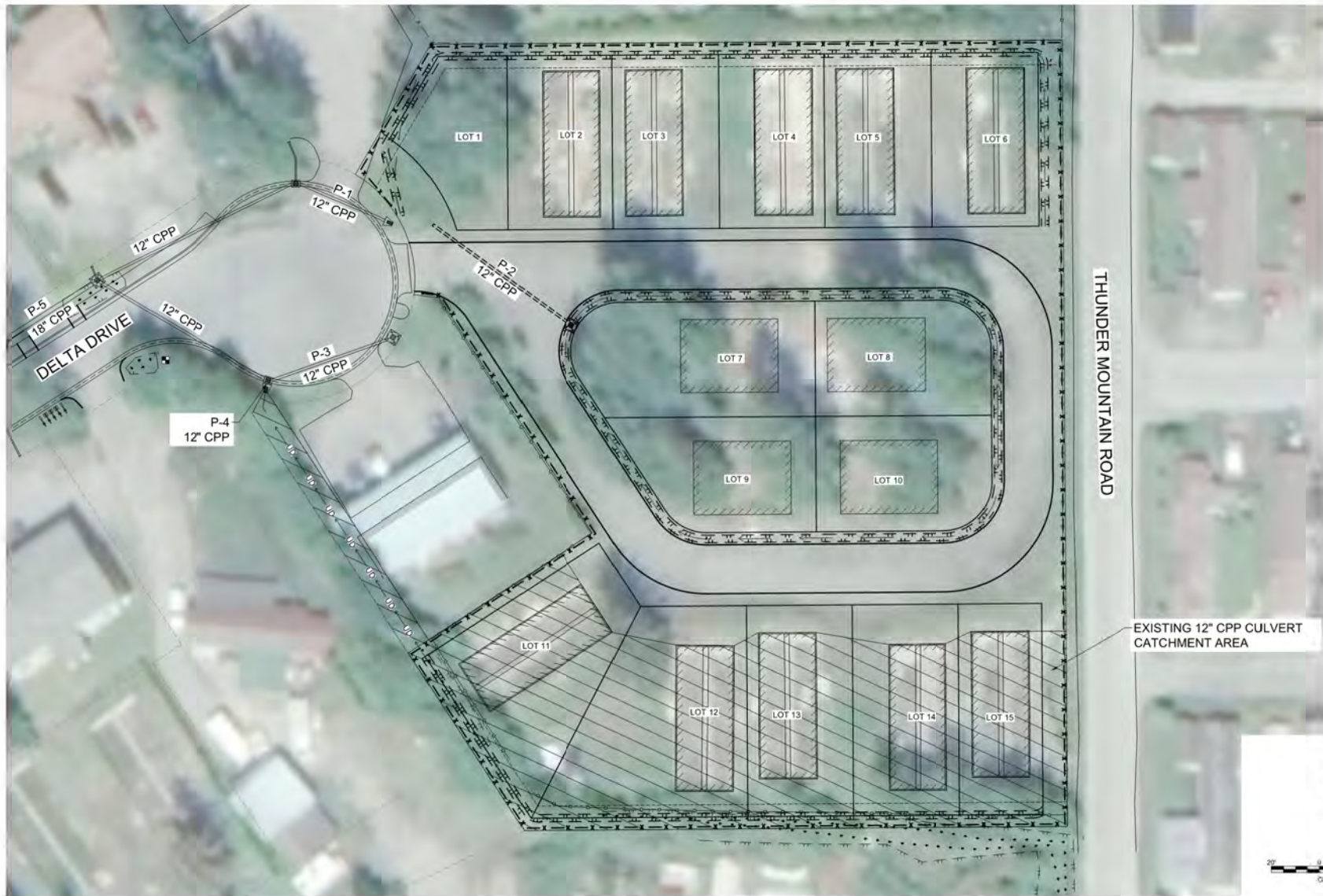
A BEPPES COMPANY

9109 Mendenhall Mall Rd. Ste. 4, Juneau, AK 99801
907.780.6060 | AEC605

**P-3: EXISTING 12" CPP
CULVERT CATCHMENT AREA**

DATE: March 25, 2021
PDC No: 2009JUN

SHEET
4



DESIGN: XXX			
DRAWN: XXX			
CHECK: JWP			
APPROVED: JWP			
FILE	NO. DATE	REVISION	BY APPROV.

DELTA DRIVE
SUBDIVISION

JUNEAU, AK



P-4: EXISTING 12" CPP
CULVERT CATCHMENT AREA

DATE: March 25, 2021
PDC No: 2009JUN
SHEET
5

Appendix B

Rational Method

Rational Method Site Runoff Pipe P-1: Existing 12" CPP		
Project:	Delta Drive Subdivision	
Owner:	Bicknell Inc.	
Date:	11/19/2020	
Prepared By:	M. Minsch	
Checked By:	M. Pusich	

$$Q = CIA$$

Q = peak flow in cubic feet per second (cfs)
 C = runoff coefficient
 I = rainfall intensity (inches per hour)
 A = catchment area (acres)

$$C_c = (C_1A_1 + C_2A_2)/A_t$$

C_c = composite runoff coefficient
 $C_{1,2}$ = runoff coefficient for each area land cover type
 A_t = total area (acres)
 $A_{1,2}$ = areas of land cover (acres)
 $C_c = 0.84$, see Appendix C for calculation

$$T_c = T_1 + T_2 + \dots + T_n$$

T_c = time of concentration (min)
 $T_{1,2}$ = travel time across separate flow path segments (min)
 $T_c = 13.10$ min, see Appendix D for calculation

$$T_t = L/60V$$

T_t = travel time (min)
 L = the distance of flow across a given segment (feet)
 $V = k_r\sqrt{S_0}$ = average velocity $\left(\frac{\text{feet}}{\text{sec}}\right)$ across land cover
 k_r = time of concentration velocity factor (CBJ Manual of Storm Water BMP 2010, Table D - 5, PG. D - 10)
 S_0 = slope of flow path $\left(\frac{\text{feet}}{\text{feet}}\right)$

Per CBJ Manual of Storm Water BMP 2010, Table 5-1, page 5-1, design event frequencies are specified. For driveway culvert, a 25-year storm event is the required design return period. We will base our analysis on a 25-year design return period for all drainage structures and catchment areas. Per CBJ Manual of Storm Water BMP 2010, page D-9, basins with a time and concentration 10 minutes or less shall use the 10 minute intensity. Basins with a time of concentration greater than 10 minutes and less than 30 minutes shall interpolate between the 10 and 30 minute values. Rainfall intensity for the site was sourced from the NOAA Atlas 14, Point Precipitation Frequency Estimates, see Appendix E, and is summarized as follows:

	Design Return Period
Tc 13.10 (min)	25-year
Interpolated Intensity (in/hr)=	2.03

Pipe P-1 is an existing 12" CPP culvert on the northeast side of the Delta Drive cul-de-sac that drains into the Delta Drive storm system at the location where the new subdivision access will tie into the shoulder of the cul-de-sac. The area that is proposed to contribute runoff to this culvert was delineated in AutoCAD.

$$A = 26270 \text{ sqft} / 43,560 = 0.60 \text{ acres}$$

	C_c	I	A		
Q (cfs)=	0.84	2.03	0.60	=	1.03

Rational Method Site Runoff Pipe P-2: Proposed 12" CPP		
Project:	Delta Drive Subdivision	 PDC ENGINEERS PLAN • DESIGN • CONSTRUCT A RESPECT COMPANY 9109 Mendonhall Mall Rd. Ste. 4, Juneau, AK 99801 907.780.6060 AEC605
Owner:	Bicknell Inc.	
Date:	11/19/2020	
Prepared By:	M. Minsch	
Checked By:	M. Pusich	

$$Q = CIA$$

Q = peak flow in cubic feet per second (cfs)
C = runoff coefficient
I = rainfall intensity (inches per hour)
A = catchment area (acres)

$$C_c = (C_1A_1 + C_2A_2)/A_t$$

C_c = composite runoff coefficient
 $C_{1,2}$ = runoff coefficient for each area land cover type
 A_t = total area (acres)
 $A_{1,2}$ = areas of land cover (acres)
 $C_c = 0.84$, see Appendix C for calculation

$$T_c = T_1 + T_2 + \dots + T_n$$

T_c = time of concentration (min)
 $T_{1,2}$ = travel time across separate flow path segments (min)
 $T_c = 11.27$ min, see Appendix D for calculation

$$T_t = L/60V$$

T_t = travel time (min)
 L = the distance of flow across a given segment (feet)
 $V = k_r\sqrt{S_0}$ = average velocity $\left(\frac{\text{feet}}{\text{sec}}\right)$ across land cover
 k_r = time of concentration velocity factor (CBJ Manual of Storm Water BMP 2010, Table D - 5, PG. D - 10)
 S_0 = slope of flow path $\left(\frac{\text{feet}}{\text{feet}}\right)$

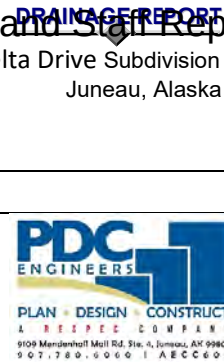
Per CBJ Manual of Storm Water BMP 2010, Table 5-1, page 5-1, design event frequencies are specified. For driveway culvert, a 25-year storm event is the required design return period. We will base our analysis on a 25-year design return period for all drainage structures and catchment areas. Per CBJ Manual of Storm Water BMP 2010, page D-9, basins with a time and concentration 10 minutes or less shall use the 10 minute intensity. Basins with a time of concentration greater than 10 minutes and less than 30 minutes shall interpolate between the 10 and 30 minute values. Rainfall intensity for the site was sourced from the NOAA Atlas 14, Point Precipitation Frequency Estimates, see Appendix E, and is summarized as follows:

	Design Return Period
T_c 11.27 (min)	25-year
Interpolated Intensity (in/hr)=	2.22

P-2 is a proposed 12" CPP pipe is being installed to maintain the runoff from part of the subdivision access road and from proposed lots 7 through 10. Runoff will be carried down to a ditch where it will then flow into pipe P-1 and discharge into the Delta Drive storm system. The area that is proposed to contribute runoff to this culvert was delineated in AutoCAD.

$$A = 21,736 \text{ sqft} / 43,560 = 0.50 \text{ acres}$$

	C_c	I	A		
Q (cfs)=	0.84	2.22	0.50	=	0.94



Rational Method Site Runoff Pipe P-3: Existing 12" CPP		
Project:	Delta Drive Subdivision	
Owner:	Bicknell Inc.	
Date:	11/19/2020	
Prepared By:	M. Minsch	
Checked By:	M. Pusich	

$$Q = CIA$$

Q = peak flow in cubic feet per second (cfs)

C = runoff coefficient

I = rainfall intensity (inches per hour)

A = catchment area (acres)

$$C_c = (C_1A_1 + C_2A_2)/A_t$$

C_c = composite runoff coefficient

$C_{1,2}$ = runoff coefficient for each area land cover type

A_t = total area (acres)

$A_{1,2}$ = areas of land cover (acres)

$C_c = 0.85$, see Appendix C for calculation

$$T_c = T_1 + T_2 + \dots + T_n$$

T_c = time of concentration (min)

$T_{1,2}$ = travel time across separate flow path segments (min)

$T_c = 12.93$ min, see Appendix D for calculation

$$T_t = L/60V$$

T_t = travel time (min)

L = the distance of flow across a given segment (feet)

$V = k_r\sqrt{S_0}$ = average velocity $\left(\frac{\text{feet}}{\text{sec}}\right)$ across land cover

k_r = time of concentration velocity factor (CBJ Manual of Storm Water BMP 2010, Table D - 5, PG. D - 10)

S_0 = slope of flow path $\left(\frac{\text{feet}}{\text{feet}}\right)$

Per CBJ Manual of Storm Water BMP 2010, Table 5-1, page 5-1, design event frequencies are specified. For driveway culvert, a 25-year storm event is the required design return period. We will base our analysis on a 25-year design return period for all drainage structures and catchment areas. Per CBJ Manual of Storm Water BMP 2010, page D-9, basins with a time and concentration 10 minutes or less shall use the 10 minute intensity. Basins with a time of concentration greater than 10 minutes and less than 30 minutes shall interpolate between the 10 and 30 minute values. Rainfall intensity for the site was sourced from the NOAA Atlas 14, Point Precipitation Frequency Estimates, see Appendix E, and is summarized as follows:

	Design Return Period
Tc 12.93 (min)	25-year
Interpolated Intensity (in/hr)=	2.05

Pipe P-3 is an existing 12" CPP culvert on the southeast side of the Delta Drive cul-de-sac that drains into the Delta Drive ditch system that is near the location where the new subdivision access will tie into the shoulder of the cul-de-sac. Runoff will flow into the area drain and catch basin before flowing through the culvert. The area that is proposed to contribute runoff to this culvert was delineated in AutoCAD.

$$A = 10,626 \text{ sqft} / 43,560 = 0.24 \text{ acres}$$

	C_c	I	A	
Q (cfs)=	0.85	2.05	0.24	= 0.42

Rational Method Site Runoff Pipe P-4: Existing 12" CPP		
Project:	Delta Drive Subdivision	 PDC ENGINEERS PLAN • DESIGN • CONSTRUCT A RESPECT COMPANY 9109 Mendonhall Mall Rd, Ste. 4, Juneau, AK 99801 907.780.6060 AEC605
Owner:	Bicknell Inc.	
Date:	11/19/2020	
Prepared By:	M. Minsch	
Checked By:	M. Pusich	

$$Q = CIA$$

Q = peak flow in cubic feet per second (cfs)

C = runoff coefficient

I = rainfall intensity (inches per hour)

A = catchment area (acres)

$$C_c = (C_1A_1 + C_2A_2)/A_t$$

C_c = composite runoff coefficient

$C_{1,2}$ = runoff coefficient for each area land cover type

A_t = total area (acres)

$A_{1,2}$ = areas of land cover (acres)

$C_c = 0.83$, see Appendix C for calculation

$$T_c = T_1 + T_2 + \dots + T_n$$

T_c = time of concentration (min)

$T_{1,2}$ = travel time across separate flow path segments (min)

$T_c = 16.60$ min, see Appendix D for calculation

$$T_t = L/60V$$

T_t = travel time (min)

L = the distance of flow across a given segment (feet)

$V = k_r\sqrt{S_0}$ = average velocity $\left(\frac{\text{feet}}{\text{sec}}\right)$ across land cover

k_r = time of concentration velocity factor (CBJ Manual of Storm Water BMP 2010, Table D - 5, PG. D - 10)

S_0 = slope of flow path $\left(\frac{\text{feet}}{\text{feet}}\right)$

Per CBJ Manual of Storm Water BMP 2010, Table 5-1, page 5-1, design event frequencies are specified. For driveway culvert, a 25-year storm event is the required design return period. We will base our analysis on a 25-year design return period for all drainage structures and catchment areas. Per CBJ Manual of Storm Water BMP 2010, page D-9, basins with a time and concentration 10 minutes or less shall use the 10 minute intensity. Basins with a time of concentration greater than 10 minutes and less than 30 minutes shall interpolate between the 10 and 30 minute values. Rainfall intensity for the site was sourced from the NOAA Atlas 14, Point Precipitation Frequency Estimates, see Appendix E, and is summarized as follows:

	Design Return Period
Tc 16.60 (min)	25-year
Interpolated Intensity (in/hr)=	1.77

There is an existing 12" CMP culvert that drains into the existing Delta Drive drainage system at the location where the new subdivision access will tie into the end of the Delta Drive cul-de-sac. The 12" CMP culvert is proposed to be replaced with a 12" CPP culvert along with the rest of the Delta Drive storm system under CBJ Contract BE21-028 "Delta Drive Reconstruction." Work is scheduled for spring/summer 2021. The 12" CPP culvert is being installed to maintain the existing flow around the Delta Drive cul-de-sac.

$$A = 21,786 \text{ sqft} / 43,560 = 0.50 \text{ acres}$$

	C_c	I	A		
Q (cfs)=	0.83	1.77	0.50	=	0.74

Appendix C

Runoff Coefficient

DRAINAGE REPORT

Delta Drive Subdivision

Juneau, Alaska

Runoff Coefficient Calculations

Project:	Delta Drive Subdivision	 PLAN • DESIGN • CONSTRUCT A RESPEC COMPANY 9109 Mendota Hall Mall Rd, Ste. 4, Joliet, IL 60431 907.780.0000 ARECC605
Owner:	Bicknell Inc.	
Date:	11/19/2020	
Prepared By:	M. Minsch	
Checked By:	M. Pusich	

Pipe P-1: Existing 12" CPP Culvert

Total Basin Area (SQFT)=	26270
Total Basin Area (ACRE)=	0.60

Surface Type	Location	Area (SQFT)	Total (SQFT)	Total (Acre)	% Overall Basin	Surface Runoff Coefficient	Runoff Coefficient for Each Area
Pavement	Road	3143					
			3143	0.07215335	11.96%	0.9	0.1
Building Roofs	Mobile homes	7084					
			7084	0.16262626	26.97%	0.9	0.1
Gravel Area	Everywhere else	16043					
			16043	0.3682966	61.07%	0.8	0.3
		Total=	26270	0.60	100.00%		0.5
					Composite Runoff Coefficient		0.84

Pipe P-2: Proposed 12" CPP

Total Basin Area (SQFT)=	21736
Total Basin Area (ACRE)=	0.5

Surface Type	Location	Area (SQFT)	Total (SQFT)	Total (Acre)	% Overall Basin	Surface Runoff Coefficient	Runoff Coefficient for Each Area
Pavement	Road	4842					
			4842	0.11115702	22.28%	0.9	0.1
Building Roofs	Mobile homes	4800					
			4800	0.11019284	22.08%	0.9	0.1
Gravel Area	Everywhere else	12094					
			12094	0.27764004	55.64%	0.8	0.2
		Total=	21736	0.50	100.00%		0.4
					Composite Runoff Coefficient		0.84

DRAINAGE REPORT



PDC
ENGINEERS
PLAN • DESIGN • CONSTRUCT
A RESPECT COMPANY
9109 Mendenhall Mall Rd. Ste. 4, Jumeau, AK 998
907.780.6060 | AECC60

Runoff Coefficient Calculations	
Project:	Delta Drive Subdivision
Owner:	Bicknell Inc.
Date:	11/19/2020
Prepared By:	M. Minsch
Checked By:	M. Pusich

PDC
ENGINEERS

PLAN • DESIGN • CONSTRUCT

A RESPEC COMPANY

9109 Mendota Hall Mall Rd. Ste. 4, Burnsville, MN 55337
952.780.0060 | AEECC05

Pipe P-3: Existing 12" CPP	
Total Basin Area (SQFT)=	10626
Total Basin Area (ACRE)=	0.24

Surface Type	Location	Area (SQFT)	Total (SQFT)	Total (Acre)	% Overall Basin	Surface Runoff Coefficient	Runoff Coefficient for Each Area
Pavement	Road	5115					
			5115	0.11742424	48.14%	0.9	0.1
Gravel Area	Everywhere else	5511					
			5511	0.12651951	51.87%	0.8	0.1
		Total=	10626	0.24	100.00%		0.2
					Composite Runoff Coefficient		0.84

Pipe P-4: Existing 12" CPP Culvert	
Total Basin Area (SQFT)=	21786
Total Basin Area (ACRE)=	0.50

Surface Type	Location	Area (SQFT)	Total (SQFT)	Total (Acre)	% Overall Basin	Runoff Coefficient	Runoff Coefficient for Each Area
Pavement	Road	7037					
			7037	0.16154729	32.30%	0.9	0.1
Gravel Area	Everywhere else	14750					
			14750	0.33861341	67.70%	0.8	0.3
		Total=	21786	0.50	100.00%		0.4
					Composite Runoff Coefficient		0.83

Appendix D

Time of Concentration

**Time of Concentration Calculations**

Project:	Delta Drive Subdivision
Owner:	Bicknell Inc.
Date:	11/19/2020
Prepared By:	M. Minsch
Checked By:	M. Pusich

Pipe P-1: Existing 12" CPP Culvert	
Time of Concentration	
Distance of Flow (Ft):	393
Time of concentration velocity factor:	20
Slope of Flow Path (Ft/Ft):	0.01
Velocity (Ft/Sec):	2
Time of Concentration (Min):	13.10

Pipe P-2: Proposed 12" CPP Culvert	
Time of Concentration	
Distance of Flow (Ft):	338
Time of concentration velocity factor:	20
Slope of Flow Path (Ft/Ft):	0.01
Velocity (Ft/Sec):	2
Time of Concentration (Min):	11.27

Pipe P-3: Existing 12" CPP Culvert	
Time of Concentration	
Distance of Flow (Ft):	388
Time of concentration velocity factor:	20
Slope of Flow Path (Ft/Ft):	0.01
Velocity (Ft/Sec):	2
Time of Concentration (Min):	12.93

Pipe P-4: Existing 12" CPP Culvert	
Time of Concentration	
Distance of Flow (Ft):	498
Time of concentration velocity factor:	20
Slope of Flow Path (Ft/Ft):	0.01
Velocity (Ft/Sec):	2
Time of Concentration (Min):	16.60

Appendix E

Rainfall Intensity

Attachment C - SMF2021 0002 Final Plat Notice of Decision and **DRAINAGE REPORT**
Delta Drive Subdivision
Juneau, Alaska



NOAA Atlas 14, Volume 7, Version 2
Location name: Juneau, Alaska, USA*
Latitude: 58.3922°, Longitude: -134.5604°
Elevation: 50.42 ft**
* source: ESRI Maps
** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Penca, Douglas Kane, Sarah Dietz, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishari Roy, Svetlana Stuefer, Amy Tidwell, Carl Trypanuk, Dale Uhrh, Michael Yokta, Erica Bettis, Geoffrey Bonnin, Sarah Heim, Lillian Hiner, Elizabeth Lilly, Jayashree Narayanan, Fenglin Yan, Tan Zhao

NOAA, National Weather Service, Silver Spring, Maryland
and
University of Alaska Fairbanks, Water and Environmental Research Center

[PF tabular](#) | [PF graphical](#) | [Maps & aerials](#)

PF tabular

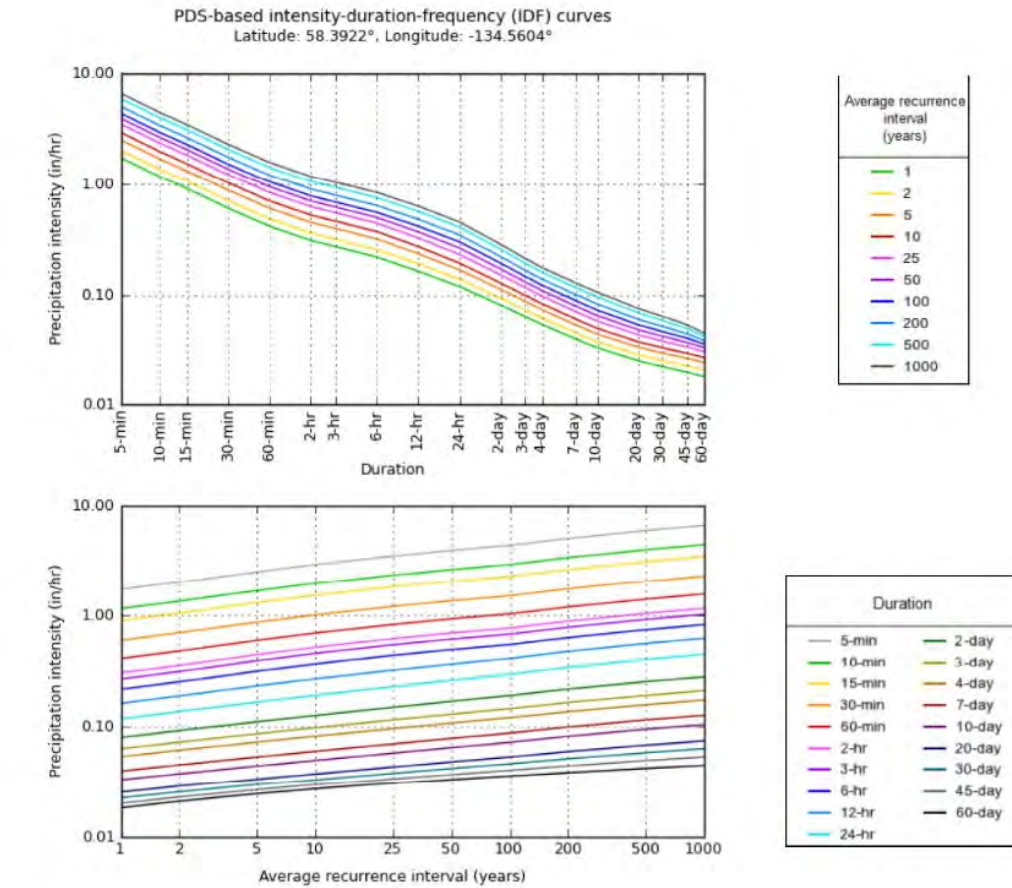
PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour) ¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	1.74 (0.936-2.21)	2.03 (1.61-2.62)	2.52 (1.94-3.34)	2.94 (2.22-3.97)	3.50 (2.58-4.86)	3.95 (2.84-5.59)	4.38 (3.10-6.34)	5.05 (3.49-7.45)	5.95 (4.01-9.01)	6.62 (4.38-10.2)
10-min	1.16 (0.936-1.48)	1.36 (1.08-1.76)	1.69 (1.31-2.24)	1.97 (1.49-2.68)	2.35 (1.73-3.26)	2.65 (1.91-3.75)	2.94 (2.08-4.25)	3.40 (2.35-5.01)	4.00 (2.69-6.05)	4.45 (2.94-6.86)
15-min	0.908 (0.728-1.16)	1.06 (0.840-1.37)	1.32 (1.02-1.75)	1.54 (1.16-2.08)	1.84 (1.35-2.55)	2.06 (1.49-2.92)	2.30 (1.62-3.32)	2.65 (1.83-3.90)	3.12 (2.10-4.72)	3.47 (2.30-5.35)
30-min	0.602 (0.484-0.766)	0.704 (0.556-0.908)	0.876 (0.676-1.16)	1.02 (0.770-1.38)	1.22 (0.896-1.89)	1.37 (0.986-1.94)	1.52 (1.07-2.20)	1.76 (1.22-2.59)	2.07 (1.39-3.13)	2.30 (1.52-3.55)
60-min	0.413 (0.332-0.525)	0.482 (0.381-0.622)	0.600 (0.463-0.794)	0.699 (0.528-0.944)	0.834 (0.613-1.16)	0.939 (0.676-1.33)	1.04 (0.736-1.51)	1.20 (0.833-1.78)	1.42 (0.955-2.14)	1.58 (1.04-2.43)
2-hr	0.306 (0.246-0.390)	0.358 (0.283-0.462)	0.447 (0.345-0.592)	0.520 (0.394-0.703)	0.622 (0.457-0.862)	0.698 (0.503-0.990)	0.775 (0.547-1.12)	0.894 (0.619-1.32)	1.05 (0.710-1.59)	1.17 (0.776-1.81)
3-hr	0.270 (0.217-0.343)	0.315 (0.249-0.407)	0.394 (0.304-0.521)	0.459 (0.347-0.620)	0.548 (0.403-0.761)	0.616 (0.444-0.872)	0.683 (0.482-0.987)	0.788 (0.545-1.16)	0.927 (0.625-1.40)	1.03 (0.683-1.59)
6-hr	0.218 (0.175-0.277)	0.255 (0.201-0.328)	0.317 (0.245-0.420)	0.369 (0.279-0.498)	0.441 (0.324-0.612)	0.496 (0.357-0.703)	0.551 (0.389-0.796)	0.636 (0.440-0.938)	0.748 (0.505-1.13)	0.834 (0.552-1.29)
12-hr	0.163 (0.131-0.207)	0.190 (0.150-0.245)	0.234 (0.181-0.310)	0.271 (0.205-0.366)	0.324 (0.238-0.450)	0.368 (0.265-0.521)	0.414 (0.292-0.598)	0.478 (0.331-0.705)	0.563 (0.380-0.852)	0.627 (0.415-0.968)
24-hr	0.118 (0.107-0.131)	0.138 (0.124-0.155)	0.167 (0.147-0.192)	0.192 (0.166-0.225)	0.230 (0.194-0.275)	0.262 (0.218-0.319)	0.298 (0.243-0.369)	0.344 (0.276-0.434)	0.405 (0.317-0.522)	0.451 (0.348-0.591)
2-day	0.080 (0.073-0.089)	0.093 (0.083-0.104)	0.111 (0.098-0.128)	0.127 (0.110-0.148)	0.150 (0.127-0.180)	0.170 (0.141-0.207)	0.192 (0.156-0.237)	0.219 (0.176-0.276)	0.255 (0.200-0.329)	0.283 (0.218-0.370)
3-day	0.063 (0.058-0.070)	0.073 (0.065-0.082)	0.087 (0.076-0.100)	0.098 (0.086-0.115)	0.116 (0.098-0.138)	0.130 (0.108-0.159)	0.146 (0.119-0.181)	0.166 (0.133-0.209)	0.192 (0.151-0.248)	0.212 (0.163-0.278)
4-day	0.054 (0.049-0.060)	0.062 (0.055-0.069)	0.073 (0.064-0.084)	0.082 (0.071-0.096)	0.096 (0.081-0.115)	0.108 (0.090-0.132)	0.121 (0.099-0.150)	0.137 (0.110-0.173)	0.158 (0.124-0.204)	0.174 (0.134-0.228)
7-day	0.040 (0.036-0.044)	0.045 (0.041-0.051)	0.053 (0.047-0.061)	0.060 (0.052-0.070)	0.070 (0.059-0.084)	0.079 (0.065-0.096)	0.088 (0.072-0.109)	0.100 (0.080-0.126)	0.116 (0.091-0.149)	0.127 (0.098-0.167)
10-day	0.033 (0.030-0.037)	0.038 (0.034-0.042)	0.044 (0.039-0.051)	0.050 (0.043-0.058)	0.058 (0.049-0.069)	0.065 (0.054-0.079)	0.073 (0.059-0.090)	0.082 (0.066-0.104)	0.095 (0.075-0.123)	0.105 (0.081-0.138)
20-day	0.025 (0.023-0.028)	0.029 (0.026-0.032)	0.034 (0.030-0.039)	0.038 (0.032-0.044)	0.043 (0.037-0.052)	0.048 (0.040-0.059)	0.053 (0.044-0.066)	0.060 (0.048-0.076)	0.068 (0.054-0.088)	0.075 (0.058-0.098)
30-day	0.022 (0.020-0.025)	0.025 (0.023-0.029)	0.030 (0.026-0.034)	0.033 (0.029-0.039)	0.038 (0.032-0.046)	0.042 (0.035-0.051)	0.046 (0.038-0.058)	0.052 (0.041-0.065)	0.058 (0.046-0.075)	0.064 (0.049-0.083)
45-day	0.020 (0.018-0.022)	0.023 (0.021-0.026)	0.027 (0.023-0.031)	0.030 (0.026-0.035)	0.034 (0.029-0.040)	0.037 (0.031-0.045)	0.041 (0.033-0.050)	0.044 (0.036-0.056)	0.050 (0.039-0.064)	0.054 (0.041-0.070)
60-day	0.018 (0.017-0.020)	0.021 (0.019-0.024)	0.024 (0.022-0.028)	0.027 (0.023-0.032)	0.031 (0.026-0.037)	0.033 (0.028-0.041)	0.036 (0.029-0.045)	0.039 (0.031-0.049)	0.042 (0.033-0.054)	0.045 (0.035-0.058)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

[Back to Top](#)

https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_printpage.html?lat=58.3922&lon=-134.5604&data=intensity&units=english&series=pds

PF graphical



NOAA Atlas 14, Volume 7, Version 2

Created (GMT): Thu Nov 19 20:30:02 2020

https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_printpage.html?lat=58.3922&lon=-134.5604&data=intensity&units=english&series=pds

Maps & aerals

Small scale terrain



Large scale terrain



Large scale map



Large scale aerial



Appendix F

Existing & Proposed Capacity Calcs

Discharge Capacity Calculations		
Project:	Delta Drive Subdivision	
Owner:	Bicknell Inc.	
Date:	11/19/2020	
Prepared By:	M. Minsch	
Checked By:	M. Pusich	

The following equation was used to calculate the capacity of pipes P-1, P-2, P-3 and P-4 that drain into the existing Delta Drive ditch system. Capacity was also calculated for the 18" CPP culvert that will transport all of the water discharged from the proposed site into the Delta Drive storm system. The equation is from "Urban Drainage Design Manual: Hydraulic Engineering Circular No. 22, Third Edition."

$$Q = (K/n) \times A \times R^{0.67} \times S^{0.5}$$

Q= Discharge in cubic feet per second (cfs)

K = Coefficient for English units (1.486)

n = Manning's coefficient of roughness, obtained from Table 5-3, Page 5-5, of the CBJ Stormwater Manual

A = Cross sectional area in square feet

R = Hydraulic radius

S= Slope

Pipe P-1: Existing 12" CPP Culvert

Inlet Invert=95.19, Outlet Invert=94.98, Length=43', n=0.014. The Manning's n value of 0.014 was determined by the pipe type (CPP-smooth interior) Table 5-3.

	k	n	A	R	S		
Q (cfs)	1.486	0.014	0.79	.25	0.006	=	2.57

Pipe P-2: Proposed 12" CPP Culvert

Inlet Invert=96.55, Outlet Invert=96.20, Length=70', n=0.014. The Manning's n value of 0.014 was determined by the pipe type (CPP-smooth interior) Table 5-3.

	k	n	A	R	S		
Q (cfs)	1.486	0.014	0.79	0.25	0.005	=	2.34

Pipe P-3: Existing 12" CPP Culvert

Inlet Invert=95.21, Outlet Invert=94.88, Length=54', n=0.014. The Manning's n value of 0.014 was determined by the pipe type (CPP-smooth interior) Table 5-3.

	k	n	A	R	S		
Q (cfs)	1.486	0.014	0.79	0.25	0.0061	=	2.59

Pipe P-4: Existing 12" CPP Culvert

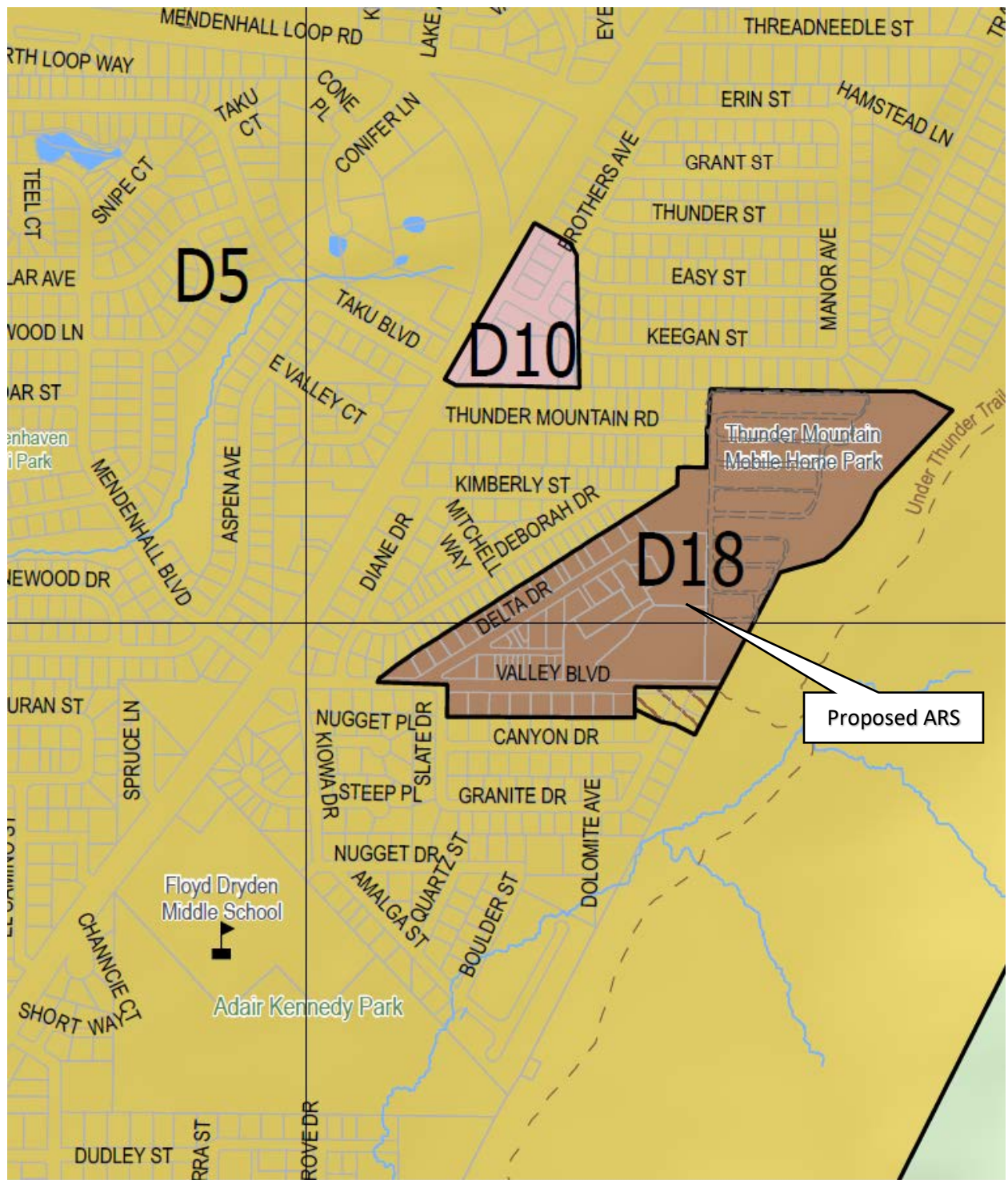
Inlet Invert=95.84, Outlet Invert=94.88, Length=5', n=0.014. The Manning's n value of 0.014 was determined by the pipe type (CPP-smooth interior) Table 5-3.

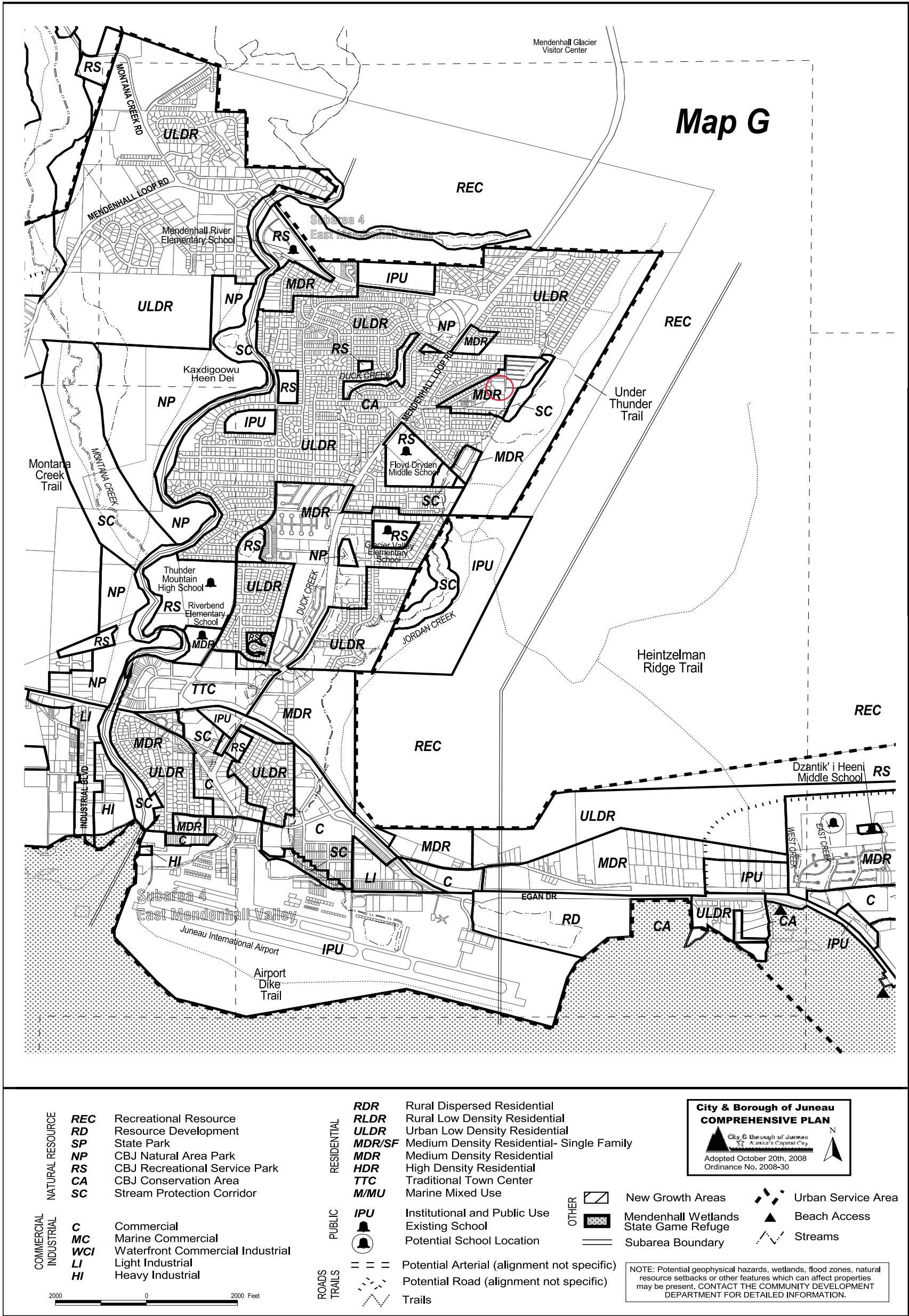
	k	n	A	R	S		
Q (cfs)	1.486	0.014	0.79	0.25	.1920	=	14.51

Pipe P-5: Existing 18" CPP Culvert

Inlet Invert=95.21, Outlet Invert=94.88, Length=5', n=0.014. The Manning's n value of 0.014 was determined by the pipe type (CPP-smooth interior) Table 5-3.

	k	n	A	R	S	
Q (cfs)	1.486	0.014	1.77	0.375	.004	= 14

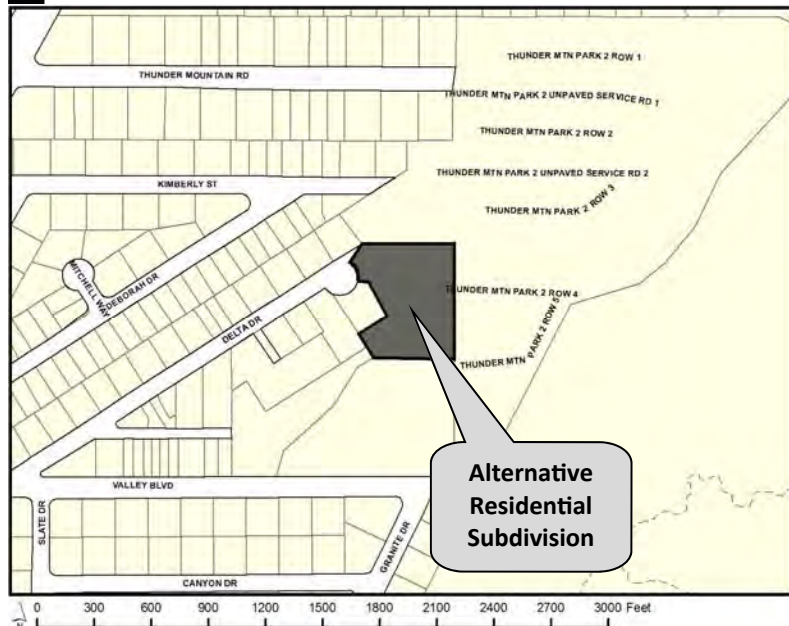




Invitation to Comment

On a proposal to be heard by the CBJ Planning Commission

Your Community, Your Voice



155 S. Seward Street Juneau, Alaska 99801

TO:

An application has been submitted for consideration and public hearing by the Planning Commission for an **Alternative Residential Subdivision** creating **15 lots** at **4090 Delta Drive** in a **D18 zone**.

TIMELINE

Staff Report expected to be posted **Monday, January 4, 2020** at <https://juneau.org/community-development/planning-commission>. Find hearing results, meeting minutes and more here as well.

Now through Dec. 21

Comments received during this period will be sent to the Planner, **Laurel Christian**, to be included as an attachment in the staff report.

Dec. 22 — noon, Jan. 11

Comments received during this period will be sent to Commissioners to read in preparation for the hearing.

HEARING DATE & TIME: 7:00 pm, Jan. 12, 2021

This virtual meeting will be by video and telephonic participation only. To join the Webinar, visit: <https://juneau.zoom.us/j/93626358724>. The Webinar ID is: 936 2635 8724. To join by telephone, call: +1 253 215 8782 or +1 346 248 7799 or +1 669 900 6833 or +1 301 715 8592 or +1 312 626 6799 or +1 929 436 2866 and enter the Webinar ID.

Jan. 13

The results of the hearing will be posted online.

Phone: (907)586-0715 ♦ Email: pc_comments@juneau.org
Mail: Community Development, 155 S. Seward St, Juneau AK 99801

Printed December 7, 2020

Case No.: SMP2020 0004/ARP2020 0001
Parcel No.: 5B2401620011
CBJ Parcel Viewer: <http://epv.juneau.org>

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

Laurel Christian

From: dbloommer@bicknellinc.com
Sent: Monday, December 28, 2020 10:23 AM
To: Laurel Christian
Subject: Delta Dr Sign Posted
Attachments: Resized_20201228_092437.jpeg

EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

Hi Laurel,

Here is the picture of the sign at Delta Dr. Let me know if we need to do anything else.

Thanks,
David



Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report



(907) 586-0757
Jill.Maclean@juneau.org
www.juneau.org/CDD
155 S. Seward Street • Juneau, AK 99801

MEMO

From:

Jill Maclean, AICP, Director

To:

Michael LeVine, Planning Commission Chair

Case Number:

ARP2020 0001 and SMP2020 0004

RE: Staff Report Correction

Staff received several questions and requests for clarification on staff reports ARP2020 0001 and SMP2020 0004. Below, please find corrections and / or additional clarification. Items bolded are necessary revisions or corrections to the staff report.

ARP2020 0001:

- **Page 3 of 12 (packet page 61): Inaccurately states that only single-family and accessory apartments are permissible. The Alternative Residential Subdivision (ARS) ordinance allows for residential uses (49.15.920(m)), including multifamily dwellings, e.g. condominiums, and is not restricted to single-family dwellings. The residential uses follow the underlying zoning district.**

SMP2020 0004:

- Page 4 of 8 (packet page 149): Clarifying that the staff report is accurate for the number of dwelling units proposed on this site. Density, under the ARS 49.15.920(e)(1) *Density*, is calculated by, *"The number of dwelling units permitted in the development shall be calculated by multiplying the maximum number of dwelling units per gross acre permitted in the underlying zoning district by the number of acres in the alternative residential subdivision and rounding to the nearest whole number."*
 - In this situation, the parent lot is 79,189 square feet in a D18 zoning district. Minimum lot size is 5,000 square feet, and the maximum number of dwelling units is 33. The developer is proposing 14 dwelling units.
 - In other words, the density is based upon the acreage of the parent lot; and a developer may choose how to divvy up the density; and even if a unit-lot on its own meets or exceeds the minimum lot size of the underlying zoning district, additional units are not permissible if the maximum number of dwelling units already exists on the other unit lots. This does not include density bonuses, which are not a consideration for this project.
 - Should the developer choose to modify the type of dwellings or add additional dwelling units, a modification to the plat and / or the Alternative Residential Plan may be required depending on the proposal.

Attachment C - SMF2021 0002 Final Plat Notice of Decision and Staff Report

- Page 5 of 8 (packet page 150): Clarifying that the staff report is accurate. Roads within an ARS development may be private *or* public (if the developer builds to city standards, the road may be adopted as a public street).
 - An ARS is permitted to have a private access roads within the development, if the criteria in 49.15.920(f) is met, and these are listed and discussed in the table. The table establishes that the ARS meets the criteria for private access within the development.
 - Exempting the access within the development from 49.35 does not exempt the parent lot from fronting and accessing onto a publically maintained right-of-way. Access to the development must be through a public right-of-way – this is criteria is met, because the parent lot fronts accesses onto Delta Drive.

Page 4 of 8 (packet page 149) Plat Notes:

- **First Plat Note on this page is not completely accurate and should be DELETED.** Plat Note Reads: At time of recording, Lots 2 through 11 and 13 through 15 are limited to one single-family dwelling. Lot 12 may be permitted one single-family dwelling and one accessory apartment. See CBJ 49.15 article ix for current regulations.
 - (Note: Generally, in multi-family zoning districts, units are units and are not considered “accessory apartments” because multiple units are permitted on one lot).
- Third Plat Note should be clarified to read:
 - **Plat Note: Per CBJ 49.15.920(j), No parking areas, dwelling units, unit-lots, or permissible uses may be located within the perimeter buffer. Access to the development may cross a portion of the buffer.**



Treasury Division
155 S. Seward Street
Juneau, AK 99801
(907) 586-0377 Phone
(907) 586-5367 Fax

CERTIFICATION OF TAXES AND ASSESSMENTS PAID

I, the undersigned, being duly appointed, qualified Treasurer for the City and Borough of Juneau, First Judicial District, State of Alaska, do hereby certify that, according to the records of the City and Borough of Juneau, the following described real property is carried on the tax records in the name of:

Bicknell Inc

Current Owner

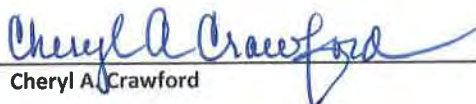
THUNDER MOUNTAIN PARK TR 1A

Legal Description

5B2401620011

Parcel Code Number

and that, all Real Property taxes and assessments levied by the City and Borough of Juneau against said Real Property have been paid in full. If approval is sought between January 1 and the date of levy, there is on deposit with the Treasury Department an amount sufficient to pay Real Property tax for the current year based on current available information; however, owner remains responsible for the balance of any taxes owed when billing occurs on July 1, 2021.


Cheryl A. Crawford

April 15, 2021

Date

This Certification of Payment of Taxes is valid through June 30, 2021