# **MEMORANDUM**

## CITY/BOROUGH OF JUNEAU 155 South Seward Street, Juneau, Alaska 99801

DATE:

March 27, 2014

TO:

**Planning Commission** 

FROM:

Laura A. Boyce, AICP, Senior Planner oura a Burgee

Community Development Department

FILE NO.:

CSP2014 0003

**PROPOSAL:** 

Drainage easement and temporary use permit on City property for site

drainage and foundation improvements for historic St. Nicholas Russian

Orthodox Church.

## **GENERAL INFORMATION**

Applicant:

City and Borough of Juneau

Property Owner:

City and Borough of Juneau

Property Address:

Fifth Street

Legal Description:

Juneau Townsite Block 24 Lot 2

Parcel Code No.:

1-C07-0-A24-003-0 (CBJ)

Site Size:

4,893 sq. ft.

Comprehensive Plan Future

Land Use Designation:

Traditional Town Center (TTC)

Zoning:

D18, Multi-family

**Utilities:** 

City Sewer and Water

Access:

Fifth Street

Existing Land Use:

CBJ Parking and Open Space

Surrounding Land Use:

North - Multi-family, Duplex Dwellings

South - Multi-family Dwellings

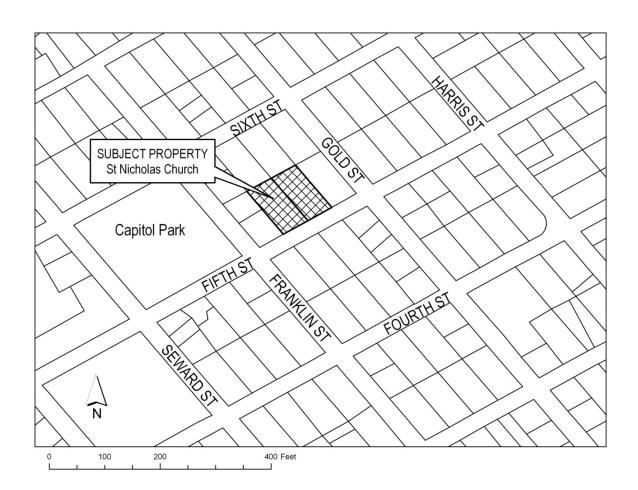
East - St. Nicholas Russian Orthodox Church

West - Multi-family Dwellings



Planning Commission File No.: CSP2014 0003 March 27, 2014

Page 2 of 6



## **ATTACHMENTS**

**Application Materials** Attachment A

Engineering Department Email, March 17, 2014 Attachment B

Building Division Email, March 17, 2014 Attachment C

Planning Commission File No.: CSP2014 0003 March 27, 2014 Page 3 of 6

#### BACKGROUND AND PROJECT DESCRIPTION

The City and Borough of Juneau's Lands and Resources Department is proposing to grant a drainage easement and a temporary Lands and Resources use permit on City property for site drainage and foundation improvements for historic St. Nicholas Russian Orthodox Church. The specific location and width of the drainage easement will be determined during construction when a full evaluation of existing drainage and specific improvements can be determined. A portion of St. Nicholas' structure is located on CBJ property.

In 1986, the City and Borough of Juneau purchased Lot 2, the subject property, which is located on the southwest boundary of the church property, in order to preserve the open space around the church as well as maintain and protect the scenic values associated with this important historic site. The City property is currently used for parking and open space purposes. As part of the 1986 purchase, providing one parking space to the duplex dwelling to the west was required. Additionally, a previous CSP case (CSP1998-00002) approved the lease of the CBJ property for a parking space for church use. Two parking spaces exist on the property today.

The church was constructed in the 1890s, during Juneau's initial development period. It is listed on the National Register of Historic Places. It is a wood-frame building which has deteriorated over the years. As detailed in the engineering report from R&M Engineering in the application materials (see Attachment A), repair of the foundation is necessary in order to protect the structure's integrity. Additionally, drainage issues are to be addressed in order to redirect drainage away from the structure, which will also provide additional protection for this historic resource. Because of the structure's proximity to City land (a portion of the structure is actually located on CBJ property) a temporary use permit will be needed in order to access the building for foundation upgrades. Additionally, a permanent drainage easement will be needed on CBJ property in order to tie the proposed new drainage pipes through CBJ property to the municipal system.

#### **ANALYSIS**

The CBJ Land Use Code section 49.10.170 (c) regarding City and Borough Land Acquisitions, Disposals, and Projects states:

"The commission shall review and make recommendations to the Assembly on land acquisitions and disposals as prescribed by Title 53, or capital improvement projects by any City and Borough Agency. The report and recommendation of the commission shall be based upon the provisions of this title and the comprehensive plan, and the capital improvement program."

Planning Commission File No.: CSP2014 0003 March 27, 2014 Page 4 of 6

Therefore, staff reviewed the proposed and provided the following evaluation of the project in accordance with adopted plans and the CBJ Land Use Code.

Regarding the proposed drainage easement on City-owned property, CBJ 53.09.300 authorizes the Assembly to approve or deny easements after it receives Planning Commission recommendation and city agency review of the proposal. CBJ 53.09.310 authorizes the City Manager to approve or deny temporary use permits (permits for less than one year) once the Planning Commission has forwarded its recommendation. For this proposal, after the Planning Commission makes its recommendation, the drainage easement request will be considered by the Assembly and the temporary land use permit for construction will be considered by the City Manager. This is noted in the Recommendations section of this staff report.

As described above and in more detail in the application materials (see Attachment A), a drainage easement will be needed on City property in order to connect the proposed new drainage pipes for the church property to the municipal storm drainage system. Additionally, in order to repair and upgrade the existing foundation, a temporary use permit will be needed so that entry through city property is allowed for construction and access purposes.

The following departments were requested to review and comment on this proposal: CBJ Engineering Department, CBJ Fire Department, and CBJ Building Division. The Historic Resources Advisory Committee (HRAC) at its March 5, 2014, regular meeting, after reviewing and considering the current proposal, made a motion recommending support. Draft minutes are not yet available from this meeting.

The existing use of the CBJ property for parking for the church was previously determined to be allowable (CSP1998-00002) and the use has continued through to the present; the use therefore continues to be consistent with Title 49. The Fire Department has no comments regarding this proposal. The Building Division supports the R&M Engineering report for recommended improvements. The Engineering Department provided the following review comments:

A catch basin/area drain shall be installed and connected to CBJ storm drain to capture surface runoff from the parking area and hillside. If the parking lot is paved an oil water separator shall be installed in the catch basin. Note runoff shall not be allowed to sheet across the sidewalk.

Staff has listed this as an advisory recommendation. Detailed analysis of exact plans will be conducted when building and drainage plans are submitted to the CBJ for review.

#### **CONFORMITY WITH ADOPTED PLANS**

The proposed church foundation work and associated drainage improvements are consistent with and further the following policies from the 2013 Comprehensive Plan:

Planning Commission File No.: CSP2014 0003 March 27, 2014 Page 5 of 6

POLICY 7.7 TO PROTECT, MAINTAIN AND IMPROVE SURFACE WATER, GROUNDWATER AND MARINE WATER QUALITY IN ITS JURISDICITION SO THAT ALL WATERS ARE IN COMPLIANCE WITH FEDERAL AND STATE WATER QUALITY STANDARDS AND CONTINUE TO ALLOW AOUATIC LIFE TO THRIVE.

This proposal will further Policy 7.7 by improving the existing drainage for St. Nicholas Russian Orthodox church and thereby protecting this important historical resource.

POLICY 10.9 TO ENCOURAGE AND STRENGTHEN JUNEAU'S POSITION AS AN INTERNATIONAL VISITOR DESTINATION BY PROTECTING THE RESOURCES AND ASSETS THAT MAKE IT ATTRACTIVE TO VISITORS, INCLUDING ITS NATURAL ENVIRONMENT, SCENIC BEAUTY, CULTURAL DIVERSITY, HISTORIC RESOURCES AND DIVERSITY OF ACTIVITIES AND EXPERIENCES. VISITOR DESTINATIONS SHOULD CONVEY AUTHENTIC JUNEAU WILDERNESS, RECREATION, HISTORY AND CULTURAL ARTS EXPERIENCES WHILE PROTECTING THOSE RESOURCES FROM OVERUSE AND DEPLETION.

POLICY 16.2. TO IDENTIFY HISTORIC RESOURCES WITHIN THE CBJ AND TO TAKE APPROPRIATE MEASURES TO DOCUMENT AND PRESERVE THESE RESOURCES.

POLICY 16.5. TO PROMOTE RESPONSIBLE HERITAGE TOURISM THAT ACCURATELY REPRESENTS JUNEAU'S UNIQUE HISTORY, WHILE PROTECTING THE RESOURCES FROM OVERUSE OR HARM.

St. Nicholas Russian Orthodox Church was built in 1893 and 1894 and was constructed during Juneau's initial development period. Since 1973, it has been listed on the National Register of Historic Places. Allowing a drainage easement on this city property as well as temporary use for construction access for foundation repairs will further these policies to protect Juneau's important historic resources.

Staff concludes that this project is consistent with the 2013 Comprehensive Plan, Title 49, and other CBJ plans.

#### **HABITAT**

This section of the Land Use Code is not applicable to the project because the parcels do not contain sensitive mapped habitats or wetlands.

Planning Commission File No.: CSP2014 0003 March 27, 2014 Page 6 of 6

## **FINDINGS**

Staff finds that the proposed project complies with the CBJ Land Use Code and applicable plans, including the 2013 Comprehensive Plan.

## **RECOMMENDATIONS**

Staff recommends that the Planning Commission recommend to the Assembly authorization of a drainage easement for site drainage improvements for historic St. Nicholas Russian Orthodox Church with the following advisory recommendation from the Engineering Department:

Advisory recommendation: A catch basin and area drain are to be installed on CBJ property and connected to the City's storm drain to capture surface runoff from the parking area and hillside. If the parking lot is paved, an oil water separator shall be installed in the catch basin. Runoff shall not be allowed to sheet across the sidewalk.

Staff also recommends that the Planning Commission recommend to the City Manager the issuance of a temporary land use permit for construction access on City property to improve the Church's foundation.

# DEVELOPMENT PERMIT APPLICATION

	( to Assign Name) Project Cescription						
	Improve site drainage and replace deteringated foundation under National Register listed historic church. In order to work on the foundation work a temporary Lands use permit will be needed. A Drainage easement will be needed to correct the drainage around the Church.						
	PROPERTY LOCATION						
2	Street Address O FIFTH ST	City/Zig Junea	City/Zip Juncau alaska				
É	Legal Description(s) of Parcel(s) (Subdivision, Survey, Black, Tract, Lot) Lot 2, Block 24, Juneau Townsite (City land) Lot 3 Block 24, Juneau Townsite (Chruch)						
AA	Assessor's Parcel Number(s) 1C070A240030 (City) 1C070A240040 (church)						
	LANDOWNER/LESSEE						
INFORMATION	Property Owner's Name City & Borough if Juneau, Lands	Contact F Dan Ble					
	Mailing Address	Haine Ph	Harne Phone: Fax Number:				
	155 S. Seward Street	1.7.7.01 (7.77)	586-0224 Other Contact Phone Number(s):				
	dan_bleidorn@ci,juneau.ak.us		586-5252				
	LANDOWNER/ LESSEE CONSENT Required for Planning Permits, not needed on Building/ Engineering Permits****						
PROJECT / APPLICANT	X Dandowner/Lessee Signature		Date / 10 14				
	Landowner/Lessee Signature  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 0	WNER, write "SAME" and align and date at X below					
	APPLICANT If the same as 0	WNER, write "SAME" and algo and date at X below Contact F					
	APPLICANT If the same as 0		Person: Work Phone:				
	APPLICANT If the same as C	Contact F	Person: Work Phone:				
	APPLICANT If the same as C Applicant's Name  App	Contact F	Person: Work Phone: one: Fax Number:				
	APPLICANT If the same as C Applicant's Name  Mailing Address  E-mail Address  X Applicant's Signature	Contact F Home Ph Other Go	Person: Work Phone:  one: Fax Number;  ntact Phone Number(s):  Order of Application				
	APPLICANT If the same as C Applicant's Name  Mailing Address  E-mail Address  X Applicant's Signature	Contact F Home Ph Other Con	Person: Work Phone:  one: Fax Number;  ntact Phone Number(s):  October of Application				
	APPLICANT If the same as C Applicant's Name  Mailing Address  E-mail Address  X Applicant's Signature	Contact F Home Ph Other Go	Person: Work Phone:  one: Fax Number;  ntact Phone Number(s):  October of Application				
	APPLICANT If the same as C Applicant's Name  Mailing Address  E-mail Address  X Applicant's Signature  Permit Type Building/Grading Permit	FFICE USE ONLY BELOW THIS LINE	Person: Work Phone:  one: Fax Number;  ntact Phone Number(s):  One: One: One: One: One: One: One: One:				
	APPLICANT  Applicant's Name  Mailing Address  E-mail Address  X  Applicant's Signature  Permit Type  Building/Grading  Permit  City/State  Project Review and City Land Activ	FFICE USE ONLY BELOW THIS LINE	Person: Work Phone:  one: Fax Number;  ntact Phone Number(s):  One: One: One: One: One: One: One: One:				
	APPLICANT  Applicant's Name  Mailing Address  E-mail Address  X  Applicant's Signature  Applicant's Signature  Character of Company Co	FFICE USE ONLY BELOW THIS LINE	Person: Work Phone:  one: Fax Number;  ntact Phone Number(s):  One: One: One: One: One: One: One: One:				
	APPLICANT  Applicant's Name  Mailing Address  E-mail Address  X  Applicant's Signature  Permit Type  Building/Grading  Permit  City/State  Project Review and City Land Actionquiry Case	FFICE USE ONLY BELOW THIS LINE	Person: Work Phone:  one: Fax Number;  ntact Phone Number(s):  One: One: One: One: One: One: One: One:				
	APPLICANT  Applicant's Name  Mailing Address  E-mail Address  X  Applicant's Signature  Applicant's Signature  Permit Type  Building/Grading  Permit  City/State  Project Review and City Land Actionuply Case (Fee in Liou, Lotter of ZC, Use Not Mining Case (Small, Large, Rural, Extraction, Extra	FFICE USE ONLY BELOW THIS LINE  ***SIGN Date Received  n	Person: Work Phone:  one: Fax Number;  ntact Phone Number(s):  One: One: One: One: One: One: One: One:				
****	APPLICANT  Applicant's Name  Mailing Address  E-mail Address  X  Applicant's Signature  Applicant's Signature  Permit Type  Building/Grading  Permit  City/State  Project Review and City Land Action inquiry Case  (Fee in Lieu, Letter of ZC, Use Not Mining Case  (Small, Large, Rural, Extraction, Existing Approval  (If more than one, fill in all applicat Subdivision	FFICE USE ONLY BELOW THIS LINE  Date Received  A Ja / 4  isted)  planation)  le permit #'s)	Person: Work Phone:  one: Fax Number;  ntact Phone Number(s):  One: One: One: One: One: One: One: One:				
	APPLICANT  Applicant's Name  Mailing Address  E-mail Address  X  Applicant's Signature  Applicant's Signature  Permit Type  Building/Grading  Permit  City/State  Project Review and City Land Actionary Case  (Fee in Liou, Lotter of ZC, Use Not Mining Case  (Small, Large, Rural, Extraction, Extr	FFICE USE ONLY BELOW THIS LINE	Person: Work Phone:  one: Fax Number;  ntact Phone Number(s):  One: One: One: One: One: One: One: One:				
	APPLICANT  Applicant's Name  Mailing Address  E-mail Address  X  Applicant's Signature  Applicant's Signature  Applicant's Signature  Permit Type  Building/Grading  Permit  City/State  Project Review and City Land Actionauiry Case  (Fee in Lieu, Letter of ZC, Use Not Mining Case  (Small, Large, Rural, Extraction, Extraction, Extraction, Extraction, Extraction, Extraction, Extraction, Extraction, Extraction, Suddivision  (Minor, Major, PUD, St. Vacation, Suddivision  (Mobile Home Parks, Accessory A)  Variance Case	FFICE USE ONLY BELOW THIS LINE	Person: Work Phone:  one: Fax Number;  ntact Phone Number(s):  One: One: One: One: One: One: One: One:				
	APPLICANT  Applicant's Name  Mailing Address  E-mail Address  X  Applicant's Signature  Permit Type  Building/Grading  Permit  City/State  Project Review and City Land Action inquiry Case  (Fee in Lieu, Lotter of ZC, Use Not Mining Case  (Small, Large, Rural, Extraction, Extraction	FFICE USE ONLY BELOW THIS LINE	Person: Work Phone:  one: Fax Number;  ntact Phone Number(s):  One: One: One: One: One: One: One: One:				
	APPLICANT  Applicant's Name  Mailing Address  E-mail Address  X  Applicant's Signature  Applicant's Signature  Company of the Address  X  Applicant's Signature  Company of the Address  Permit Type  Building/Grading  Permit  City/State  Project Review and City Land Action inquiry Case  (Fee in Liou, Letter of ZC, Use Not Mining Case  (Small, Large, Rural, Extraction, Extractio	FFICE USE ONLY BELOW THIS LINE	Person: Work Phone:  one: Fax Number;  ntact Phone Number(s):  One: One: One: One: One: One: One: One:				
	APPLICANT  Applicant's Name  Mailing Address  E-mail Address  X  Applicant's Signature  Permit Type  Building/Grading  Permit  City/State  Project Review and City Land Actiliquiry Case  (Fee in Liou, Lotter of ZC, Use Not Mining Case  (Small, Large, Rural, Extraction, E	FFICE USE ONLY BELOW THIS LINE	Person: Work Phone:  one: Fax Number;  ntact Phone Number(s):  One: One: One: One: One: One: One: One:				
	APPLICANT  Applicant's Name  Mailing Address  E-mail Address  E-mail Address   Applicant's Signature  Applicant's Signature  Permit Type  Building/Grading  Permit  City/State  Project Review and City Land Action in the project Review and Ci	FFICE USE ONLY BELOW THIS LINE  PSIGN Date Received  Date Received  District  Name Change  Cottage Housing, artment)  Case types	Person: Work Phone: one: Fax Number; ntact Phone Number(s):  One: One: One: One: One: One: One: One:				
	APPLICANT  Applicant's Name  Mailing Address  E-mail Address  E-mail Address   Applicant's Signature  Applicant's Signature  Permit Type  Building/Grading  Permit  City/State  Project Review and City Land Action in the project Review and Ci	FFICE USE ONLY BELOW THIS LINE	Person: Work Phone: one: Fax Number; ntact Phone Number(s):  One: One: One: One: One: One: One: One:				

NOTE: DEVELOPMENT PERMIT APPLICATION FORMS MUST ACCOMPANY ALL OTHER COMMUNITY DEVELOPMENT DEPARTMENT APPLICATIONS

| Proceedings | Proceded | Proceedings | Proceded | Proceedings | Proceded | Pr

# CITY/STATE PROJECT AND LAND ACTION REVIEW APPLICATION

Project Number	Project Name (1	5 characters)	Case Number CSP 20140003	Date Received				
TYPE OF PROJ	ECT REVIEW:			1 22 107 1				
City	Project Review	City Land Acquisition /Disposal	State Project	teview				
DESCRIPTION								
easement and also	and Lands departm	Church and associated buildings. This nent use permit.	project will need a permii	nate drainage				
	· v	LEATER TEATURE OF THE STATE OF						
		the project if there is not adequate space	on this form.					
CURRENT USE OF LAND OR BUILDING(S):								
on this lot.	he Current use of the City parcel is to retain open space around the Church and there is also two parking spaces locate n this lot.							
	ALL MILE IVA							
PROPOSED USE OF LAND OR BUILDING(S):								
The proposed use of the land is to maintain open space around the Church and protect the view shed of the church.								
			no proceed the view sites	or the charen.				
PROJECT NUM	BERS ASSOCI	ATED WITH PROPOSAL:						
Is this project associa	ated with any other	Land Use Permits? No Yes	Case No.:					
Capital Improvement		25.14 0 50 7 10 10 10 10 10 10 10 10 10 10 10 10 10	ouse No					
Local Improvement D								
	istrict # (LID)							
State Project #								
ESTIMATED PRO	OJECT COST:	\$						
For more information of the permitting process a required for a complease see the reverse	nd the submittals plete application,	Application Fees s	Check No. Receipt	Date				
f you need any ass				-				

NOTE: MUST BE ACCOMPANIED BY DEVELOPMENT PERMIT APPLICATION FORM

EVEN IF THE PROPOSED PROJECT IS ASSOCIATE WITH OTHER LAND USE PERMITS, THIS APPLICATION MUST BE FILLED OUT

## CITY/STATE PROJECT REVIEW REQUIREMENTS

Each application for a City/State Project is reviewed by the Planning Commission at a public hearing. The permit procedure is intended to provide the Commission the flexibility necessary to make recommendations tailored to individual applications.

Application: An application for a City/State Project Review will not be accepted by the Community Development Department until it is determined to be complete. The items needed for a complete application are:

Forms: A completed City/State Project Review Application form and Development Permit Application form. The "land owner or lessee consent" signature is <u>mandatory</u> for all landowners on the Development Permit Application form.

Fees: No fee required for projects that cost less than \$2.5 million. For projects costing more than this amount, the fee is \$1,600.00. All fees are subject to change.

Project Description: A detailed letter or narrative describing the project.

Plans: All plans are to be drawn to scale and clearly show the items listed below:

- A. Plat, site plan, floor plan and elevation views of existing and proposed structures and land;
- B. Existing and proposed parking areas, including dimensions of the spaces, aisle width and driveway entrances;
- Proposed traffic circulation within the site including access/egress points and traffic control devices;
- D. Existing and proposed lighting (including cut sheets for each type of lighting);
- E. Existing and proposed vegetation with location, area, height and type of plantings; and,
- Existing physical features of the site (i.e. drainage, eagle trees, hazard areas, salmon streams, wetlands, etc.)

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

- A. Electronic copies may be submitted by CD, DVD or E-mail in the following formats: .doc, .txt, .xls, .bmp, .pdf, .jpg, .gif .xlm, .rtf or other formats pre-approved by the Community Development Department.
- B. Paper copies may not be larger than 11" X 17" (Unless a larger paper size is preapproved by the Community Development Department).

Application Review & Hearing Procedure: Once the application is determined to be complete, the Community Development Department will initiate the review and scheduling of the application. This process includes:

Review: As part of the review process the Community Development Department will evaluate the application for consistency with all applicable City & Borough of Juneau codes and adopted plans. Depending on unique characteristics of the permit request the application may be required to be reviewed by other municipal boards and committees. Review comments may require the applicant to provide additional information, clarification, or submit modifications/alterations for the proposed project.

Hearing: All City/State Project Review Permit Applications must be reviewed by the Planning Commission. Once an application has been deemed complete and has been reviewed by all applicable parties the Community Development Department will schedule the requested permit for the next appropriate meeting. The Planning Commission will make a recommendation based on staff's analysis and forward it to the Assembly for final approval/denial.

## ST. NICHOLAS ORTHODOX CHURCH JUNEAU, ALASKA SITE GRADING ANALYSIS



Alaska State Library - Historical Collections

## Prepared for:

ROSSIA, Inc. P.O. Box 212315 Anchorage, AK 99521-2315

## Prepared by:

R&M Engineering, Inc. 6205 Glacier Highway Juneau, AK 99801

November 26, 2013 R&M Project No. 131352 RECEIVED FEB 1 0 2014

PERMIT CENTER/CDD

# ST. NICHOLAS ORTHODOX CHURCH SITE GRADING ANALYSIS

# **TABLE OF CONTENTS**

	Pages
1.	Introduction 1
11.	Site Investigation Observations and Recommendations3
	Storm Water Roof Runoff4
	Surface Water Runoff6
	Groundwater8
	Structures 10
111	Conclusion

# I. INTRODUCTION

E VAISONE

#### Introduction

At the request of ROSSIA, Inc., R&M Engineering, Inc. (R&M) conducted a site investigation of the St. Nicholas Russian Orthodox Church in Juneau, Alaska. The church is located at 326 5<sup>th</sup> Street in downtown Juneau. The legal description of the property investigated is: Lot 2, 3, & 6, Block 24. The St. Nicholas Surveying RFP, May 20, 2011, requires a concise report outlining the existing grading and drainage issues as well as proposed solutions. There are two historic structures on site built during the 1890's including the church and the rectory. Meetings are still held regularly at the church and the rectory has since become a rectory. 5<sup>th</sup> Street is a City and Borough of Juneau owned and maintained roadway with public underground utilities (sanitary sewer, water and storm drain). R&M's site investigations from June 11-13, 2013 consisted of identifying drainage systems, grading characteristics and potential site problems. Following is a report of the visual observations made on this date and our recommendations for resolving the drainage issues observed on site. For report purposes we consider 5<sup>th</sup> street the south side of the project site.



# II. SITE INVESTIGATION OBSERVATIONS AND RECOMMENDATIONS

#### Storm Water Roof Runoff

#### Observations

The rectory building has a steeply pitched sheet metal roof. Most of the roof runoff falls directly to the ground. On the east side of the structure, however, there is a short run of gutter along the eave with one downspout emptying out onto the sidewalk on 5<sup>th</sup> Street. It is assumed that snow falling from this steeply pitched roof also accumulates very near the existing building wood siding. Rot was observed on the wood siding of the building where no gutters were present. The church has cedar shingle roofing and is also steeply pitched. A gutter and downspout system captures runoff on the octagonal part of the structure, while the entry and bell tower sheet off water onto the ground. Of the downspouts, two empty onto the ground surface and two others appear to connect to underground piping. It could not be determined if this piping connects to the storm drain network on 5<sup>th</sup> Street or not.



St. Nicholas Orthodox Church – View looking South toward 5<sup>th</sup> Street



Wood siding and trim is rotten on lower wall of rectory building from standing water.



Church building has a nearly complete roof gutter system.

#### Recommendations

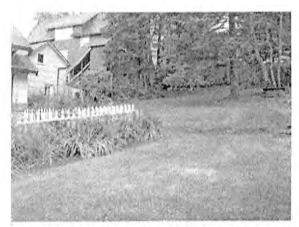
It is recommended that roof runoff be directly routed to the underground storm drain system wherever possible. 5<sup>th</sup> Street has an underground storm drain system with four 6" PVC service stub-outs located on site along the north side of the sidewalk. Connection to this storm drain system would involve minor excavation to locate the existing 6" PVC stub-outs located at the property line. Water that sheets off of the roof tends to splash off the ground onto the siding and may cause further damage to the siding. Gutters should be installed on the rectory building and church entry with downspouts tying into underground drain pipes. Even if there is an underground drain it may not be feasible to connect with all downspouts directly. In this case, downspouts may outfall into shallow swales in the landscaping that direct water to an area drain structure. Several area drains may be needed across the lot. See appendix for examples of construction details.

## Surface Water Runoff

#### Observations

Surface drainage on site more or less follows the natural contours of the ground which slopes at approximately 20% from the top of the property (north) toward 5<sup>th</sup> Street (south). The grass lawn area has a landscaping berm along the southwest property line (between lots 1 and 2) which directs surface runoff towards the existing off-street gravel parking area. From there the surface runoff travels onto 5<sup>th</sup> Street across the concrete sidewalk, into the concrete gutter and eventually into the existing catch basins. One area of ponding was noted at the gravel parking area near 5<sup>th</sup> Street.

Although other small swales are evident across the site, surface water generally follows the slope of the hill towards 5<sup>th</sup> Street. Along this path, surface water flow is obstructed by the existing concrete walkways and structures on site. Localized cracking was observed in the existing concrete walkway which is indicative of poor soils, saturated soils experiencing freeze/thaw cycles or both. The areas of cracking include the concrete entry to the church building and the separated concrete steps between the two structures.



Landscaping berm along SW property line.



Gravel parking off 5th Street.



Cracking in concrete entry to church.



Separation of concrete walkway between structures is a potential tripping hazard.

Page 6 of 14

#### Recommendations

The swales to the north of the church should be extended to new area drain structures near the concrete walkway. These area drains will collect surface water that would otherwise flow out onto the walkway and potentially cause more damage to the concrete. It is recommended to use CPP (Corrugated Polyethylene Pipe) Inlets which are a smaller and cheaper alternative to concrete area drains in places that do not receive heavy traffic. The area drains will need to be connected to the existing underground storm drain system on 5<sup>th</sup> Street. To make this connection, a portion of the concrete walkway will need removed and replaced. The area of separated concrete will be replaced as part of this work.

On the west side of the church, a shallow swale can also be graded along the existing grass/gravel path around and directed into a new area drain. This should prevent surface runoff from flowing underneath the church. The surface water between the west property line and gravel path can also be captured in a drainage swale and directed towards a new area drain.

The gravel parking area can be paved to provide a more permanent path for surface water to flow towards 5<sup>th</sup> Street. This would eliminate any ponding behind the existing concrete sidewalk which could potentially lead to cracking in the concrete if left as is. If it is decided to maintain a gravel parking area, re-grading will eliminate the ponding. Note that the property line for Lot 1 passes through this area, so improvements in this area must be negotiated with the owner of the adjacent property.

To bring the surface water from the perimeter of the rectory building into the storm drain system, it may be necessary to install an area drain between the elevated building entry and the rock wall. Gravel swales with topsoil/grass surfacing will direct surface water to the drain structure and the gutter downspouts can be tied in to this structure as well.

The concrete walkway leading up to the church from 5<sup>th</sup> Street is heavily travelled by pedestrians. To eliminate a potential trip hazard, the two areas of cracking in the sidewalk should be repaired.

#### Groundwater

#### Observations

The rectory building is a wood-framed building bearing on a concrete foundation. A concrete stem wall encompasses the perimeter of the basement. The footings appear to be in good condition. Two areas of concern are the lowered entries on the north and southwest sides of the building. The entry stairs do not meet code requirements and are potential water traps.

The church building is a wood-framed structure bearing on a combination concrete wall and concrete pier foundation. From the exterior these concrete footings appear to be in good shape with no reported cracking.

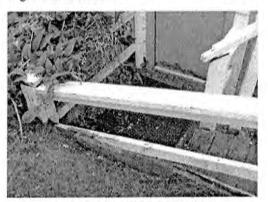
A short rock retaining wall follows behind the sidewalk on 5<sup>th</sup> Street. Loose rocks and cracked grout was observed in the wall. We assume that the wall obstructs ground water flow from the hillside. One wall drain was identified, but is in poor condition. Also, the wood fence and railing structures have moisture damage where they are in contact with the ground surface.



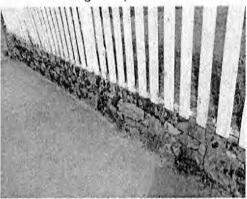
North entry to the rectory basement.



West entry to the rectory basement.



Wood decking is in poor condition.



The rock retaining wall along 5<sup>th</sup> Street is deteriorating.

#### Recommendations

It is suggested that the basement entry and the north entry to the rectory be reconstructed. This would involve concrete landing pads, concrete stairs and concrete retaining walls. The concrete landing pads will include a drain to route water into area drain structures. A foundation wall drainage system should also be considered to direct groundwater away from the building footings. The current plan to raise the building will help by making the north doorway landing closer to the existing grade of the lawn.

The rock retaining wall along 5<sup>th</sup> Street can be reconstructed using concrete with a rock veneer. Drainage weep holes in the concrete will provide an escape for subsurface groundwater. Reconstruction of the west end of the retaining wall will also require an agreement with the owner of Lot 1.

In addition, it is recommended that the wood fence and railing structures be replaced throughout the site using pressure-treated or rot-resistant wood set on concrete bases.

#### Structures

#### Observations

On June 13, 2013 the basements underneath the church and rectory were inspected for water damage. The church foundation is a timber-framed structure sitting on concrete piers on the south end and a concrete footing wall on the north end. 8x8 timber columns and beams are located around the perimeter and 6x8 structural members are typical within the perimeter. 4x6 floor joists are spaced at 24" on center beneath a 12" thick wood floor. The floor is partially insulated with fiberglass and foam panels. There is a plastic moisture barrier underneath the floor that appears to be in poor condition. One screen vent is in place on the west side of the basement; however, the ground was observed to be very wet - especially considering the last two weeks of dry weather preceding the inspection. Rot was seen in several locations beneath the building including: the joist ends and subfloor at the north side of the building, and the wood subfloor on the west side of the building. Both of these locations are at the edges of the concrete wall footing and close to the existing downspouts. Where the joists connect to the perimeter beam 2x6 boards have been nailed beside the rotten joists for reinforcement. It appears that the flooring damage is limited to the edge of the building, but further investigation would be necessary to determine the full extent of the water damage. Also, one concrete pier has been displaced from heaving soils, leaving the column suspended above the ground. The short foundation wall is being undermined by water flowing from the concrete walkway area. The downspout in this location spills out directly onto the ground exacerbating the problem.

The rectory has a full height basement in use as a woodshop and storage space. An approximately 6'tall concrete stem wall makes up the perimeter of the structure, supporting the timber-framed floor above. 6x6 timber posts hold a 6x6 timber beam along the length of the structure midway between the concrete walls. 2x6 wood joists run transverse to the main beam at 24" on center. In the north end of the basement, the concrete steps down to 40" in height and retains the soil beneath the north building entry. The 2x10 joists in this area run lengthwise across the building and the basement narrows to a dirt floor crawlspace. It appears that the joists and flooring has been rebuilt. However, there is evidence of water damage on the northwest corner of the floor. The joist hangers are rusting and some rot is developing in this area beside the north entry door. Severe rotting has occurred to the timber ceiling members. One timber beam has almost rotted completely and 2x6 joists have been scabbed on each side of the member for reinforcement. Mold has spread from the rotten timber to the reinforcing joists. The floor decking above the water heater and in the bathroom area also has significant rot. Since most of the rot is near the exterior wall, it is thought that water is entering the timber floor members beneath the exterior siding. The wicking action of wood fibers can pull in water and spread it to adjacent wood boards. Rotting in the middle of the building may have been caused by high humidity, poor ventilation or leaks in the plumbing system. There is one floor drain on the southeast end of the building that will prevent the basement from flooding. An excessive number of holes have been drilled through a series of floor joists on the east side of the building.



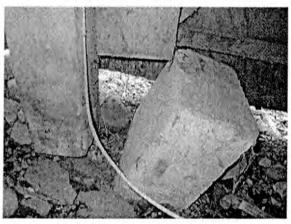
Timber-framing bears on a concrete wall and concrete piers beneath the church. The vapor barrier is incomplete.



A 2x6 joist has been scabbed onto a 4x6 timber joist to reinforce the rotten ledger connection. (Church Building)



The foundation wall is being undermined near the concrete walkway. Note the downspout to the right. (Church building)



Downslope of the washed-out footing, a concrete pier has heaved out from under the 8x8 timber post. (Church Building)



A severely rotted timber floor beam has been reinforced with two 2x6 joists in the basement of the rectory.



The wood floor above the water heater shows significant signs of water damage, which is reflective of the rotten siding on the exterior of this wall. (Rectory)



Rotten door jambs at the lowered entries in the rectory indicate poor drainage.



2x6 timber joists on the east side of the rectory have lost most of their strength due to excessive drilling.

#### Recommendations

Excessive moisture was found beneath the timber-framed church. Although no major structural problems were found, the rotting in the floor may warrant a more thorough investigation. Removing and replacing damaged wood members will add to the longevity of the structure. It is suggested that a complete vapor barrier be installed beneath the floor to prevent the humid air in the basement from infiltrating into the floor cavity. Adding additional vents may also help circulate air in the basement. Connecting the downspouts to underground pipes and area drains for catching surface water will help reduce the amount of water entering the basement. The concrete pier that has been displaced should be repositioned beneath the timber column and grout should be used to fill the void beneath the foundation wall that is being washed out.

Rotting of the timber floor in the rectory is a concern to the structural integrity of the building and should be addressed. As evidenced by the water damage, it appears that the issue has been occurring for a long time. Although some additional framing has been added to bolster the weakened timbers, more permanent repairs are recommended. A more thorough investigation is necessary to determine the full extent of the damage and to provide detailed plans for reconstruction. Fortunately, changes can be made on the exterior of the building to prevent water from entering in the future. The first line of action should be to install gutters and downspouts to keep rain water from splashing on the siding. The lower portion of siding and trim will need replaced and a vapor barrier added on the wall at this time. Also, the steeply pitched roof sheds snow to the building perimeter that can act as a dam, causing water to back up against the building. A new wall drain system around the foundation wall will help drain groundwater away from the building. There is currently gravel on the west side of the building, but the rock stairs to the basement entry may act as a barrier to subsurface groundwater flow. Where space allows, gravel drains around the foundation wall should feed into perforated storm drain pipe and into the existing underground storm drain network. The lowered entries will need rebuilt to replace the rotted door jambs and to keep water from collecting there in the future. Also, the joists that have been compromised with excessive drilling for utility channels should be replaced.

# III. CONCLUSION

#### Conclusion

The following recommendations are suggested to correct present drainage issues observed during our inspection visits, to pro-long the service life of the buildings and to provide a safer facility for the public. The drainage issues on site should be addressed cumulatively to prevent further damage to the existing structures. A summary of recommendations is listed below:

- Install roof eave gutters on buildings where none are present.
- Connect all new and existing downspouts to an underground storm drain network to minimize surface runoff. PVC and CPP pipes are the most common materials for this type of drainage system. Grading and drainage plans will need to be submitted to the City & Borough of Juneau (CBJ) to obtain a construction permit which will include permission for a connection to the CBJ storm drain system.
- Construct shallow gravel swales on site to channel surface water away from existing structures.
- Install area drains to collect surface water runoff from swales and connect these with the existing underground storm drain system on 5th Street located at the property line. We suggest keeping the area drain grates exposed rather than concealed for practical purposes; maintenance, cleaning, etc.
- At a minimum remove and replace areas of the concrete pathway that display cracking or separation. It should be considered to replace the entire path to eliminate the uneven steps which are a tripping hazard. Options for hardscape replacement include ready-mixed concrete, asphalt pavement or unit pavers. Ready-mixed concrete appears to be the most feasible solution. To achieve a more historic appearance the concrete may be stamped to resemble a timber boardwalk.
- Pave existing gravel parking area on 5<sup>th</sup> Street to create permanent slope for directing runoff.
- Remove both lowered entryways to the rectory and replace them with new concrete landings, stairs and retaining walls. Install wall drain systems around the foundation wall in these areas to collect groundwater. We understand future rehabilitation plans include relocating the basement entry to the rectory's east elevation. If this does not occur, we recommend adding a concrete landing drain at the current entry location.
- Reconstruct rock retaining wall along 5th Street with weep holes for groundwater discharge.
- Reconstruct wood handrails for pedestrian traffic along the concrete walkway and fences showing signs of water damage.
- Add vapor barrier beneath church floor, additional vents in basement, reposition displaced concrete pier and grout void under washed-out foundation wall.
- Replace rotten and damaged floor members in the rectory.

We have appreciated being of assistance to ROSSIA on this project and look forward to discussing this drainage analysis with you. Should you have any questions, please do not hesitate to contact us at (907) 780-6060.

Sincerely,

R&M Engineering, Inc.

Jacob Graves, E.I.T.

Civil Engineer

J. Mark Pusich, P.E. Civil Engineer



# MEMORANDUM

#### CITY/BOROUGH OF JUNEAU

Lands and Resources Office 155 S. Seward St., Juneau, Alaska 99801 Dan\_Bleidorn@ci.juneau.ak.us

> Voice (907) 586-5252 Fax (907) 586-5385

> > RECEIVED

PERMIT CENTER/CDD

TO:

Assembly Lands Committee

FROM:

Dan Bleidorn

Deputy Lands Manager

SUBJECT:

St. Nicholas Russian Orthodox Church Easements

DATE:

September 25, 2013

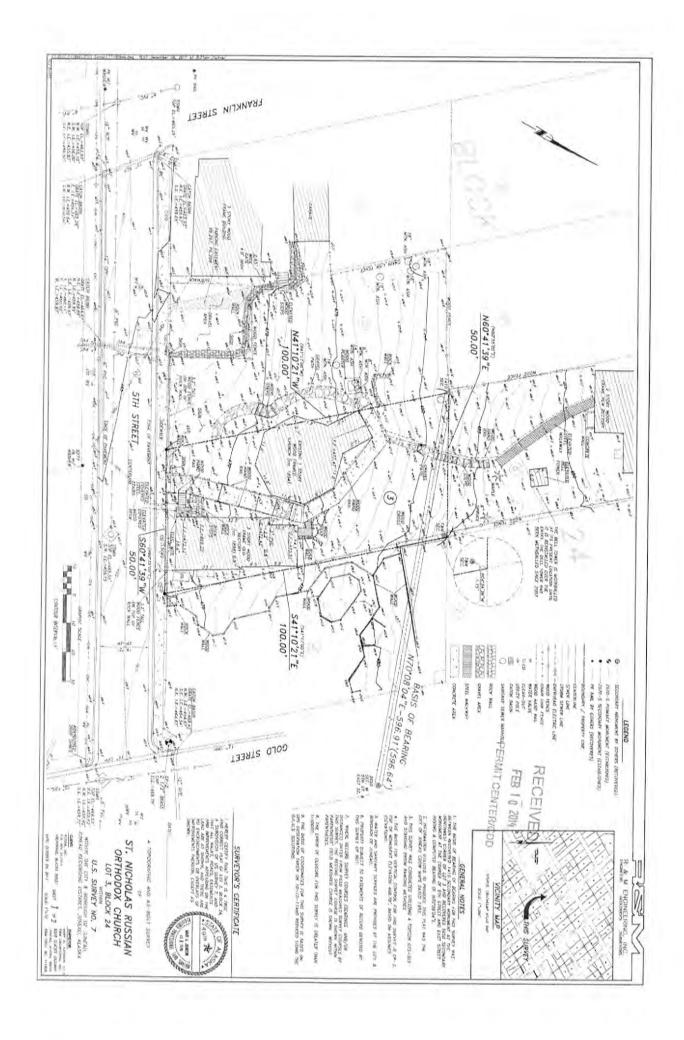
The St. Nicholas Russian Orthodox Church is located at 326 Fifth Street in downtown Juneau. The legal description of the church's property is: Lot 3 & 6, Block 24. The two structures on the site are the church and the rectory building, were built in the 1890's and are both historic structures. The City owns Lot 2, Block 24 which is adjacent to the Church's property. The City purchased this lot in 1986 in order to preserve open space around the Church and to maintain the scenic values of this popular photographic and historic attraction. At the time of the purchase it was understood that the southwest corner of the church encroached onto the parcel. The City property contains two parking spaces. A lease that provided a parking spot to the existing duplex located on Lot 1 was a condition of the purchase. The second parking space had previously been leased to the Church in exchange for site maintenance. This lease has since expired.

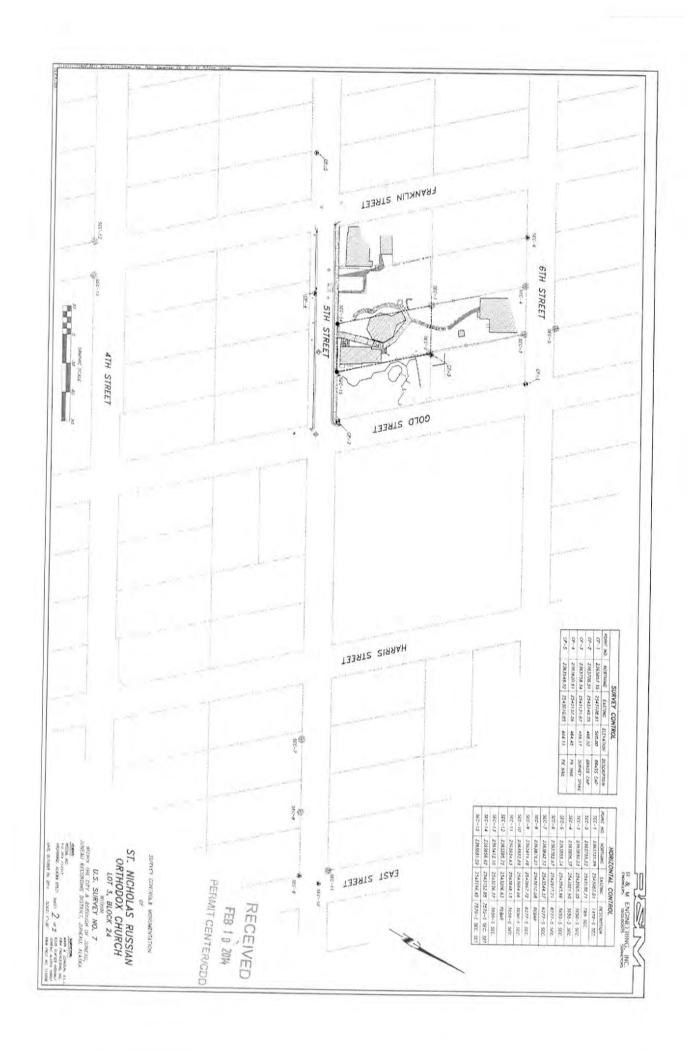
The Russian Orthodox Sacred Sites in Alaska Incorporated (ROSSIA) is in the process of raising funds to repair the church foundation and to correct drainage issues. Incorrect drainage has caused wood siding to rot and caused cracks in the concrete entry to the church building and the steps between the two structures.

The Division of Lands and Resources met with representatives from the St. Nicholas Russian Orthodox Church on September 16th, 2013 to discuss existing grading and drainage issues, future foundation work, and the need to access the adjacent City owned property to work on these projects. The need for an updated lease between the City and the Church for the parking space was also discussed at this meeting. The previous 5 year lease has expired and a new long term lease agreement for this parking spot needs to be established which will include maintenance of the City owned lot in exchange for the parking space.

In order to complete the foundation upgrades, the Church will request a temporary construction easement allowing them to enter City property with equipment to access their foundation. To repair the drainage an easement will need to be granted allowing the church to connect the new drainage pipes, through the City property, to the municipal storm drain system. These projects are an important part of preserving the Church and rectory buildings and will prevent the need for future repairs. The construction easement, drainage easement and parking spot lease will all come before the Lands Committee as action items in the future.







Attachments: To: Sent: Subject: Survey December 2011.pdf; 130621 St Nicholas Report (2).pdf; RO Church CSP.pdf Nicholas Orthodox Church Easements memo.pdf; St. Nicholas Orthodox Church As-Built Edward Quinto; Jonathan Lange; Greg Chaney, Jessica Beck CSP for St. Nickolas Chruch Site Grading & Drainage Design for St. Nicholas Orthodox Church 100%.pdf; St. Monday, February 10, 2014 3:25 PM

Good afternoon,

drainage and to complete foundation work. The St. Nicholas Church has requested an easement and a temporary Lands Division use permit in order to correct

I believe I have the correct paperwork attached to start the CSP process for this project.

Please let me know if I can provide any other information.

Thank you,

Dan Bleidorn Lands & resources

## Laura Boyce

From:

Ron King

Sent:

Monday, March 17, 2014 11:23 AM

To:

Laura Boyce; Dan Jager; Sven Pearson; Charlie Ford; Shawn Williams

Cc:

Dan Bleidorn; Autumn Sapp; Mark Millay

Subject:

RE: Please review and provide comments - CSP2014 0003 St. Nicholas Russian Orthodox

Church

Attachments:

APP CSP20140003.pdf

A catch basin/area drain shall be installed on Lot I and connected to CBJ storm drain to capture surface runoff from the parking area and hillside. If the parking lot is paved an oil water separator shall be installed in the catch basin. Note runoff shall not be allowed to sheet across the sidewalk.

RON KING, PLS GENERAL ENGINEERING CITY AND BOROUGH OF JUNEAU 907-586-0881

From: Laura Boyce

Sent: Monday, March 17, 2014 11:02 AM

To: Ron King; Dan Jager; Sven Pearson; Charlie Ford; Shawn Williams

Subject: Please review and provide comments - CSP2014 0003 St. Nicholas Russian Orthodox Church

Attached please find the application and materials for improvements to the St. Nicholas Russian Orthodox Church. This request is for using a portion of the adjacent parcel, owned by the CBJ, for drainage and access issues. A drainage easement will be needed as well as a temporary use permit for access for foundation work, which will be granted by the Lands Department.

Please provide any comments and questions you have as soon as possible.

Thank you,

Laura

Laura A. Boyce, AICP
Senior Planner, Community Development Department
City & Borough of Juneau
155 S. Seward Street
Juneau, AK 99801
907-586-0753

fax: 907-586-3365

## Laura Boyce

From:

John Young

Sent:

Monday, March 17, 2014 1:56 PM

To:

Laura Boyce

Subject:

FW: Please review and provide comments - CSP2014 0003 St. Nicholas Russian Orthodox

Church

Attachments:

APP CSP20140003.pdf

Hello Laura;

The recommendation by Jacob Graves of R&M Engineering to correct the drainage and the make the structural corrections is what we would recommend for the above mentioned project.

John Young CBJ Plan Reviewer 907 586 0783

From: Shawn Williams

Sent: Monday, March 17, 2014 1:24 PM

To: John Young

Subject: FW: Please review and provide comments - CSP2014 0003 St. Nicholas Russian Orthodox Church

From: Laura Boyce

Sent: Monday, March 17, 2014 11:02 AM

To: Ron King; Dan Jager; Sven Pearson; Charlie Ford; Shawn Williams

Subject: Please review and provide comments - CSP2014 0003 St. Nicholas Russian Orthodox Church

Attached please find the application and materials for improvements to the St. Nicholas Russian Orthodox Church. This request is for using a portion of the adjacent parcel, owned by the CBJ, for drainage and access issues. A drainage easement will be needed as well as a temporary use permit for access for foundation work, which will be granted by the Lands Department.

Please provide any comments and questions you have as soon as possible.

Thank you,

Laura

Laura A. Boyce, AICP Senior Planner, Community Development Department City & Borough of Juneau 155 S. Seward Street Juneau, AK 99801 907-586-0753 fax: 907-586-3365