

# City of Brookings

## MEETING AGENDA

### CITY COUNCIL

**Monday, October 26, 2015, 7:00pm**

City Hall Council Chambers, 898 Elk Drive, Brookings, OR 97415

#### **A. Call to Order**

#### **B. Pledge of Allegiance**

#### **C. Roll Call**

#### **D. Ordinances/Resolutions/Final Orders**

1. Ordinance 15-O-748 adding Amateur Radio Facilities as conditional uses in Brookings Municipal Code. [Advance Packet]
2. Ordinance 15-O-749 amending Exhibit A of Ordinance 15-O-744 to correct the metes and bounds description. [Advance Packet]
3. Ordinance 15-O-750, amending System Development Charge exemptions in the Brookings Municipal Code. [Advance Packet]

#### **E. Oral Requests and Communications from the audience** - Public Comments on non-agenda items – 5 minute limit per person.\*

#### **F. Staff Reports**

1. Authorization to submit a Connect *Oregon* VI grant application for the Del Norte County Airport Terminal. [City Manager, pg. 3]
  - a. Terminal layout [pg. 5]
  - b. Terminal concept drawing [pg. 6]
  - c. Draft support letter [pg. 7]
2. Authorization to execute a contract for a new entry gate at the Wastewater Treatment Plant. [Parks, pg. 8]
  - a. Description [pg. 9]
3. Authorization to execute an Intergovernmental Agreement with Oregon Department of Transportation for art in the Highway 101 right of way. [PWDS, pg. 22]
  - a. Intergovernmental Agreement [pg. 23]
4. Authorization to execute a Memorandum of Understanding with McDonalds Corporation regarding acceptance by the City of a private storm drain. [PWDS, pg. 31]
  - a. Memorandum of Understanding [pg. 32]
  - b. Engineer's analysis [pg. 39]
  - c. Letter from McDonalds attorney [pg. 47]
5. Status of National Disaster Resiliency Competition Grant Application. [City Manager, pg. 49]

#### **G. Consent Calendar**

1. Approve Council minutes for October 12, 2015. [pg. 50]
2. Approve Liquor License Application for Pacific Sushi, 613 A and 611 Chetco Avenue. [pg. 54]

3. Cancel November 23<sup>rd</sup> and December 28<sup>th</sup> City Council meetings.

## **H. Remarks from Mayor and Councilors**

### **I. Adjournment**

\*Obtain Public Comment Forms and view the agenda and packet information on-line at [www.brookings.or.us](http://www.brookings.or.us), at City Hall and at the local library. Return completed Public Comment Forms to the City Recorder before the start of meeting or during regular business hours.


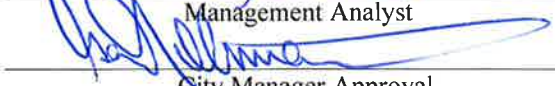
All public meetings are held in accessible locations. Auxiliary aids will be provided upon request with at least fourteen days advance notification. Please contact 469-1102 if you have any questions regarding this notice.

# CITY OF BROOKINGS

## COUNCIL AGENDA REPORT

Meeting Date: October 26, 2015

Originating Dept: PW/DS

  
Management Analyst  
  
City Manager Approval

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Subject: Connect Oregon VI Regional Airport Terminal Project

Recommended Motions:

Motion to authorize staff to submit a Connect Oregon VI grant application for \$900,000 for a project to construct a new terminal at Del Norte County Airport.

Motion to authorize City Council letter of support for the Connect Oregon VI grant application.

Financial Impact:

City will experience some administrative costs associated with processing payment requests.

Background /Discussion:

The Oregon Department of Transportation (ODOT) is accepting applications under the Connect Oregon VI (COVI) program.

The purpose of the Connect Oregon program is to encourage economic development through improvements to the regional transportation system, and to enhance connectivity among various modes of transportation. Job creation and/or retention is a central goal of the program.

In its role as a member of the Border Coast Regional Airport Authority (BCRAA), the City has received past Connect Oregon (CO) funding for other projects at the Del Norte County Airport. Most recently, The Runway Safety Improvement Project was funded during the previous CO grant cycle.

The proposed project would construct a new 15,300 square foot passenger terminal. The existing terminal facility consists of a 2,000 square foot building, augmented by a 900 square foot portable building used for final security screening and secure boarding. Additional associated improvements include road realignment, water/sewer lines, vehicle parking, fencing, construction of an aircraft apron area, and replacing a hangar facility.

The City of Brookings has identified improved access to commercial passenger air transportation service as a key element in its economic development. Also, medical transport is a major element of the current aviation services at the airport, for both urgent and more routine treatment needs.

The proposed project would make an important contribution to improving the airport's passenger service facilities, providing not only relief for the current congestion that occurs for basic ticketing, screening, boarding, and baggage services, but also space for food and retail

concessions. Additionally, the new facility would accommodate a larger aircraft parking position.

The total cost for the terminal project is estimated at \$18,000,000. The primary source of funding is expected to be the Federal Aviation Administration (FAA), through an Airport Improvement Program (AIP) grant.

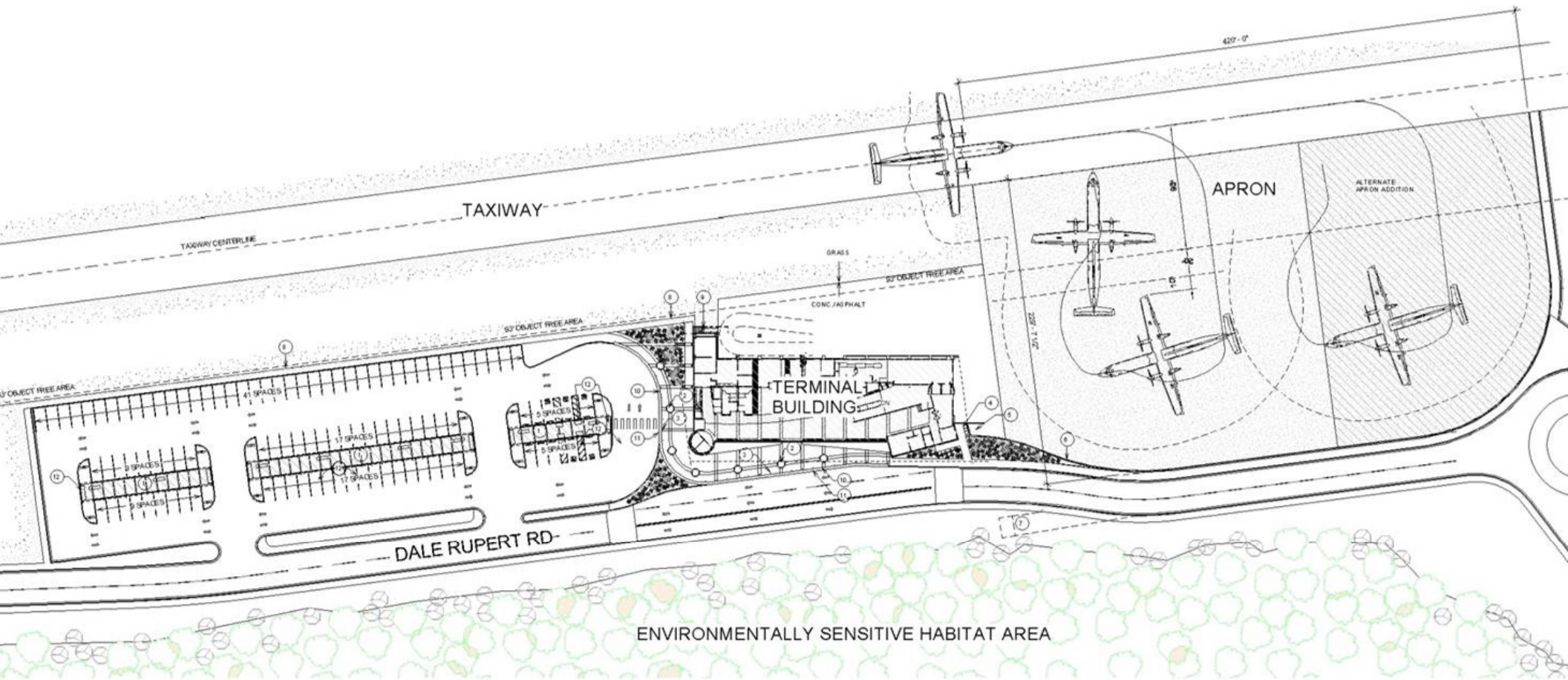
The COVI funding requested is \$900,000. This amount provides funding for the five (5) percent local match required by the FAA AIP grant.

The estimated start date of the terminal construction is June 2016.

Attachment(s):

- a. Terminal layout plan
- b. Terminal concept drawing
- c. Draft support letter

# Layout for Del Norte County Airport Terminal Project





Concept for Del Norte County Airport Terminal Project





# City of Brookings

898 Elk Drive, Brookings, OR 97415  
(541) 469-1138, Fax (541) 469-3650, TTY (800) 735-1232

**Mayor Ron Hedenskog**

October 26, 2015

ODOT Freight Planning Unit  
555 13th Street NE, Suite 2  
Salem OR 97301-3871  
Attn: *ConnectOregon* Program

The Brookings City Council fully supports the *ConnectOregon* VI application for the Regional Airport Terminal project at the Del Norte County Airport. Along with six other regional members, the City of Brookings is part of the Boarder Coast Regional Airport Authority, a Joint Powers Authority that governs the Airport.

The Del Norte County Airport is the closest commercial airport for residents of the Brookings area and other portions of the southern Oregon coast. The proposed project makes significant improvements for passengers at the current level of usage and will allow further levels of service as demand grows.

Existing trends fully support our belief that the terminal project itself, as well as its associated opportunity for new and expanded businesses, will increase jobs for Oregon residents. Brookings, with its close proximity to the California border, is already home to a sizable portion of residents who work just over the border for larger employers like Pelican Bay State Prison and Smith River Rancheria.

Thank you for your close consideration of this important project and for the opportunity to express our full support.

Respectfully,

Ron Hedenskog  
Mayor

# CITY OF BROOKINGS

## COUNCIL AGENDA REPORT

Meeting Date: October 26, 2015

Originating Dept: Treatment Dept.

  
\_\_\_\_\_  
Signature (submitted by)  
\_\_\_\_\_  
City Manager Approval

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Subject: Wastewater Treatment Plant (WWTP) Entry Gate

Recommended Motion: Authorize the City Manager to execute a contract with Willamette Fence in the amount of \$61,585 for installation of a new entry gate to the WWTP.

Background/Discussion: Currently the entry gate at the wastewater treatment plant is a two-piece swing gate that is secured with a padlock. During the day the gate remains open, allowing unrestricted access by the public and by vendors. During afterhours emergencies the gate is often left open to allow swift access to repair inventory and tools.

An automated slide gate would provide increased security and public safety. Access will be provided by a push button remote, key pad code, and eventually proximity cards such as those used at City Hall.

This project was budgeted as a 2015-16 CIP project in the amount of \$40,000. As it is a high priority project \$17,000 will be used from a low priority CIP project to offset the cost with the remainder funded from the WWTP building maintenance line item.

Financial Impact: Base Bid of \$60,995 plus \$295 for each block of ten remotes, assume 2 blocks for a total project cost of \$61,585.

Attachment(s):

- a. Project description



## SECTION 00400

### BID FORMS

The Bid Forms consist of the following documents, all of which must be properly executed and submitted with the Bid in order for the Bid to be considered responsive:

<u>Section</u>	<u>Description</u>
0410	Bid
00435	First-Tier Subcontractor Disclosure Form
00461	Non Collusin Affidavit
00462	Responsibility Affidavit

## SECTION 00410

### BID

Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

#### UNIT PRICE BID SCHEDULE

The Bidder agrees to accept as full payment for the required work the amount computed in accordance with the Contract Documents and based on the following unit price or lump sum amounts, with the understanding the unit prices are independent of the exact quantities involved and the unit prices represent a true measure of all work and materials required under each item, including all allowance for overhead and profit. **Bidder agrees his stated unit price amounts will be binding in the event of any errors in extension or additions.**

The undersigned hereby proposes to furnish all labor, equipment, and materials complete and including all related construction, in strict accordance with the Plans, Specifications, and Contract Documents for the prices as follows:

#### BASIC BID

Item	Description	Quantity	Unit	Unit Cost	Item Cost
1	Mobilization	1	LS	\$ 4,500.00	\$ 4,500.00
2	Site prep	1	LS	\$ 4,000.00	\$ 4,000.00
3	Material as specified in request for bid	1	LS	\$ 23,495.00	\$ 23,495.00
4	Labor	1	LS	\$ 26,500.00	\$ 26,500.00
5	Site clean up	1	LS	\$ 2,500.00	\$ 2,500.00

**TOTAL BASIC BID** \$ 60,995.00  
(Sixty thousand nine hundred ninety five and no/100)  
See attached sheet for additional costs for remote openers.



# PROPOSAL

Pg. 1 of 2 Revision 1



FOR: WILLAMETTE FENCE

PHONE: 503.793.3025

ADDRESS: 11304 NE MARX; PORTLAND, OR 97220

DATE: 9/28/2015

TERMS:

JOB ADDRESS: BROOKINGS WWTP  
905 WHARF ST  
BROOKINGS, OR 97415

TRAVIS@WILLAMETTEFENCE.COM

ATTENTION: TRAVIS WADE

WE PROPOSE TO FURNISH THE FOLLOWING

AMOUNT

ON CUSTOMER'S 26' X 6' +1 FULL CANTILEVER GATE

- INSTALL: 1) LIFTMASTER ELITE SERIES HIGH CYCLE SLIDE GATE OPENER  
1/2 HP MODEL CSL-24VDC UL325 115 VOLT WITH GEARBOX DRIVE,  
CRANK RELEASE, AND ERD SENSOR FOR UL 325 COMPLIANCE .  
INCLUDES BUILT-IN BATTERY BACK-UP FOR OPERATION DURING  
POWER FAILURE
- 1) CONCRETE MOUNTING PAD FOR OPENER MOUNTING
  - 1) LINEAR AP-5 PROGRAMMABLE RECEIVER WITH ABILITY TO ADD &  
DELETE INDIVIDUAL REMOTES
  - 1) FREE EXIT LOOP - ALLOW ALL VEHICLES TO EXIT
  - 2) VEHICLE PRESENCE LOOPS - KEEPS GATE FROM CLOSING IF  
VEHICLE IS PRESENT
  - 3) GATE EDGE CONTACT SENSORS WITH WIRELESS REMOTES -  
Required by UL325 code
  - 1) INFRARED PHOTO CELL NON-CONTACT SENSOR WITH HEATER
  - 1) GOOSENECK MOUNTING PEDESTAL FABRICATED FROM 3 X 3 TUBE  
POWDERCOATED FINISH - SET ON CONCRETE PAD
  - 1) FIRE ACCESS BOX ALLOWS EMERGENCY VEHICLE ACCESS WITH  
KNOX 3502 KEYSWITCH
  - 1) KPR2000 KEYPAD/CARD READER
- SUPPLY: 1) ONE YEAR LABOR WARRANTY
- 1) SET O & M MANUALS IN 3-RING BINDER

OPTION - Circle option chosen to be added to totals:

- \* - ADDITIONAL REMOTES ACT-31B KEYCHAIN STYLE (IN BLOCKS OF 10),  
EACH

\$295.00

(FD)

DATE INSTALLATION DESIRED

TOTAL

The above proposal is valid for 30 days. Agreements are contingent upon strikes, accidents or other conditions beyond our control. We carry manufacturers', contractors', & employers' liability & workman's compensation insurance. Customer agrees that all equipment is the property of contractor & allows contractor access to property to remove equipment if full payment is not made per contract terms. A 1 1/2% finance charge per month is charged on all past due accounts, plus all attorney fees & court cost for collection.  
CCB # 46091 CC # METROOD121MJ WF BROOKINGS WWTP



WE ACCEPT THE ABOVE PROPOSAL:

2525 NE COLUMBIA BLVD PORTLAND OR. 97211  
(503) 595-4716 (503) 285-1793 Fax

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

Submitted By: PATRICK DUTY  
g20150927

# PROPOSAL

Pg. 2 of 2 Revision 1



FOR: WILLAMETTE FENCE

PHONE: 503.793.3025

ADDRESS: 11304 NE MARX; PORTLAND, OR 97220

DATE: 9/28/2015

TERMS:

JOB ADDRESS: BROOKINGS WWTP

905 WHARF ST

BROOKINGS, OR 97415

TRAVIS@WILLAMETTEFENCE.COM

ATTENTION: TRAVIS WADE

## WE PROPOSE TO FURNISH THE FOLLOWING

## AMOUNT

### ELECTRICAL

- \* Trench/bore from operator pad and keypad location back to existing electrical panel, approximately 190'
- \* Provide and install (2) 1" PVC conduits back to building, (1) 3/4" conduit out to keypad and (1) 120V 20 amp circuit
- \* Provide and install final wirings and terminations
- \* Provide electrical permit
- \* Schedule inspection with local municipalities

### NOTES:

- \* Excavated dirt and materials to be spread on-site unless otherwise negotiated.
- \* If electrical option not chosen - No permits, bonds, trenching, conduits, piping or wire pulls to opener, keypad(s) or eyes are included in this quote - We will provide wire specs and layouts per your request.
- \* Labor quoted at standard wage rates during normal working hours.
- \* UL 325 requires gate & counterbalance to be fully meshed with no holes larger than 2 1/4". Rollers must have protective covers & pedestrians must have egress other than automated gate - These requirements to be the responsibility of fence contractor.
- \* Price based on normal ground conditions & does not include boring in rock. Metro Access Control are not responsible for non-located or non-locatable utilities or services.
- \* 20 amp dedicated breaker required, per operator.

### WARRANTY:

- \* Liftmaster Elite Series Opener - 5 Years Parts, No Warranty on Battery
- \* All other parts and labor - 1 Year
- \* Warranty work not covered for operation during ice / snow build up - Warranty work done during normal working hours

## DATE INSTALLATION DESIRED

## TOTAL

The above proposal is valid for 30 days. Agreements are contingent upon strikes, accidents or other conditions beyond our control. We carry manufacturers', contractors', & employers' liability & workman's compensation insurance. Customer agrees that all equipment is the property of contractor & allows contractor access to property to remove equipment if full payment is not made per contract terms. A 1 1/2% finance charge per month is charged on all past due accounts, plus all attorney fees & court cost for collection.  
CCB # 46091 CC # METROOD121MJ WF BROOKINGS WWTP



WE ACCEPT THE ABOVE PROPOSAL:

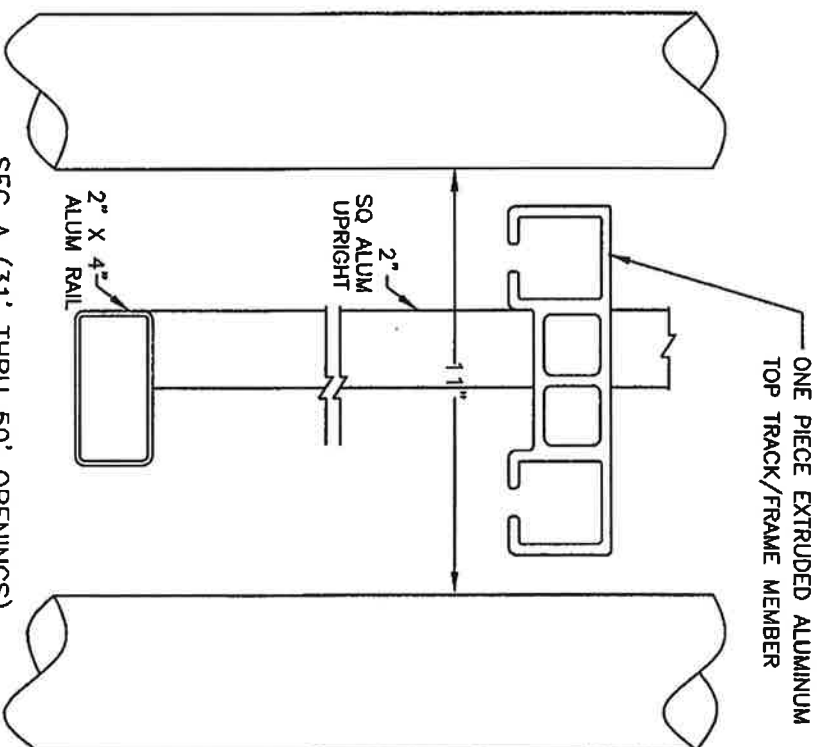
2525 NE COLUMBIA BLVD PORTLAND OR. 97211  
(503) 595-4716 (503) 285-1793 Fax

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

Submitted By: PATRICK DUTY  
g20150927



OPENING	LENGTH (L)	GATE POSTS (G)	BAYS	OVERHANG
I/S POST FACE TO I/S POST FACE	O/S DIM OF GATE LEAF	O/S POST FACE TO O/S POST FACE	NUMBER OF BAYS WITH CHAIN LINK	NUMBER OF BAYS WITHOUT CHAIN LINK
31'-0"	44'-0"	13'-0"	(5) FIVE	(2) TWO
32'-0"	45'-6"	13'-0"	(5) FIVE	(2) TWO
33'-0"	47'-0"	13'-6"	(5) FIVE	(2) TWO
34'-0"	48'-0"	14'-0"	(6) SIX	(2) TWO
35'-0"	49'-6"	14'-0"	(6) SIX	(2) TWO
36'-0"	51'-0"	15'-0"	(6) SIX	(3) THREE
37'-0"	52'-6"	15'-6"	(6) SIX	(3) THREE
38'-0"	54'-0"	15'-6"	(6) SIX	(3) THREE
39'-0"	55'-6"	16'-0"	(7) SEVEN	(3) THREE
40'-0"	56'-6"	16'-0"	(7) SEVEN	(3) THREE
41'-0"	58'-0"	16'-6"	(8) EIGHT	(3) THREE
42'-0"	59'-6"	17'-0"	(8) EIGHT	(3) THREE
43'-0"	60'-6"	17'-0"	(8) EIGHT	(3) THREE
44'-0"	62'-0"	17'-6"	(8) EIGHT	(3) THREE
45'-0"	63'-6"	18'-0"	(9) NINE	(4) FOUR
46'-0"	65'-0"	18'-6"	(9) NINE	(4) FOUR
47'-0"	66'-6"	19'-0"	(9) NINE	(4) FOUR
48'-0"	67'-6"	19'-0"	(9) NINE	(4) FOUR
49'-0"	69'-0"	19'-6"	(10) TEN	(4) FOUR
50'-0"	70'-8"	20'-0"	(10) TEN	(4) FOUR



Quality Fence Builders, Inc.

(253) 939-8533

(253) 931-8604 FAX

BACK-TO-BACK CANTILEVERED SLIDING GATE

ROUND POSTS, W/ BARBED WIRE

SEE SHEET #1  
FOR ELEV & PLAN

DWG:

Q-FT-2.1

BY:

TPA

DATE:

08-21-02

# Rupert Engineering, Inc.

## STRUCTURAL DESIGN CALCULATIONS

of

SINGLE/DOUBLE TRACK CANTILEVERED GATES  
QUALITY FENCE BUILDER, INC.  
214 21<sup>ST</sup> SE,  
AUBURN, WA 98092

for

QUALITY FENCE BUILDERS, INC.

MARCH, 2006  
REI # 06023.0





Company : Rupert Engineering, Inc.

Designer : Thomas Lee

Job Number : 06023

Mar 20, 2006

10:01 AM

Load Combinations for Single/Double Track Cantilever Gates - 30/50 ft Checked By:

### Load Combinations

	Description	Solve P.	SRSS	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.
1	S/W + DL	Yes		DL	1						
2	S/W + DL + LL	Yes		DL	1	SL	1				
3	S/W + DL + LL + WIND	Yes		DL	1	SL	1	WL	1		
4	S/W + DL + LL - WIND	Yes		DL	1	SL	1	WL	-1		
5	S/W + DL + LL + 0.7SEIS	Yes		DL	1	SL	1	EL	.7		
6	S/W + DL + LL - 0.7SEIS	Yes		DL	1	SL	1	EL	-.7		
7	0.6(S/W + DL) + WIND	Yes		DL	.6	WL	1				
8	0.6(S/W + DL) - WIND	Yes		DL	.6	WL	-1				
9	0.6(S/W + DL) + 0.7SEIS	Yes		DL	.6	EL	.7				
10	0.6(S/W + DL) - 0.7SEIS	Yes		DL	.6	EL	-.7				
11	SEISMIC	Yes		EL	1						
12	WIND	Yes		WL	1						

LOAD SYMBOL DESIGNATIONS :-

S/W = CANTILEVERED GATE WEIGHT (lbs)

DL = MISCELLANEOUS DEAD LOAD, ASSUMED 15.0 lbs/ft (SINGLE TRACK)  
45.0 lbs/ft (DOUBLE TRACK)

\* LL = LIVE LOAD, ASSUMED 25.0 lbs/ft VERTICALLY APPLIED @ TOP OF TRACK.

WIND = WIND LOAD - SEE CALCULATION pg 2.

SEISMIC = SEISMIC LOAD - SEE CALCULATION pg 2.

NOTES :-

\* OTHER VERTICAL LOAD OF 200 # WILL BE CONSIDERED AT THE END OF CANTILEVERED GATE (SINGLE OR DOUBLE TRACK)

IT WILL BE NEGLIGIBLE IF THE VERTICAL LOAD OF 200 # IS LESS THAN THE LIVE LOAD (i.e 25 lbs/ft).

- FOR 30' LONG CANTILEVERED GATE

REACTION @ POST SUPPORT DUE TO 25 lbs/ft LIVE LOAD =  $30 \times 25 = 750 \frac{\#}{ft}$   
 $> 200 \frac{\#}{ft}$  OK

- FOR 50' LONG CANTILEVERED GATE

REACTION @ POST SUPPORT DUE TO 25 lbs/ft LIVE LOAD =  $50 \times 25 = 1250 \frac{\#}{ft}$   
 $> 200 \frac{\#}{ft}$  OK

# Rupert Engineering, Inc.

CONSULTING ENGINEERS CIVIL AND STRUCTURAL

1515 West Valley Highway North Suite 101/Auburn, WA 98001  
Post Office Box 836/Auburn, WA 98071  
253-833-7776 Fax 253-039-2168

JOB 06023 Quality Fence 30' & 50' SINGLE & DOUBLE TRACK CANT. GATES  
SHEET NO 1 OF 1  
CALCULATED BY TCL DATE MAR, 06  
CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
SCALE \_\_\_\_\_

## Summary

The design of the two different single and double track cantilevered gates are included and summarized in this design report.

### SINGLE/DOUBLE TRACK CANTILEVERED GATES:

The length of the single/double tracks are noted in the following:

Single Track Cantilevered Gate: Maximum Length = 30'-0"

Double Track Cantilevered Gate: Maximum Length = 50'-0"

Single /Double Track Cantilevered Gates are made of ALUMINUM 6061-T6.

The single/double cantilevered tracks have been designed for the different load cases - gravity loads and lateral loads "WIND" & "SEISMIC".

### Gravity Loads:

#### Dead Loads

##### Self Weight

##### Imposed Dead Load:

30'-0" Cantilevered Gate - 15 Lbs/ft at top of the single track

50'-0" Cantilevered Gate - 45 Lbs/ft at top of the double track

##### \* Imposed Live Load:

25 Lbs/ft for both 30' and 50' Cantilevered Gates

\* Vertical Load 200 Lbs is considered/applied at the tip of the cantilevered gates. The vertical load will be negligible if the imposed live load is greater than 200 Lbs.

Both single and double track cantilevered gates are satisfactory with the above gravity loads.

The 30 feet "SINGLE CANTILEVERED TRACK" will be satisfactory for the following lateral load conditions - WIND:

Wind Exposure/Wind Speed	85 mph	100 mph	150 mph	170 mph
Wind Exposure B	O.K.	O.K.	NOT APPLICABLE	NOT APPLICABLE
Wind Exposure C	O.K.	O.K.	NOT APPLICABLE	NOT APPLICABLE
Wind Exposure D	O.K.	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE

The 50 feet "DOUBLE CANTILEVERED TRACK" will be satisfactory for the following lateral load conditions - WIND:

Wind Exposure/Wind Speed	85 mph	100 mph	150 mph	170 mph
Wind Exposure B	O.K.	O.K.	O.K.	NOT APPLICABLE
Wind Exposure C	O.K.	O.K.	NOT APPLICABLE	NOT APPLICABLE
Wind Exposure D	O.K.	O.K.	NOT APPLICABLE	NOT APPLICABLE

The single/double track cantilevered gates can be adequate for the seismic zone A through zone 5.

### 4" OD Post:

The 4" OD posts (Standard 40 Min.) will be satisfactory with the designated loads.

### Post Footing:

The footing design is based on the design parameters of 100 PSF/FT for lateral bearing pressure per IBC Table 1804.2. The value of lateral bearing pressure/footing design shall be verified for each individual design project. The following footing summary is based on 8'-0" high post:

2'-0" diameter footing is assumed for all wind exposures

Wind Loads	FOOTING DEPTH (feet)		
Wind Exposure/Wind Speed	85 mph	100 mph	150 mph
Wind Exposure B	3.00	3.50	4.75
Wind Exposure C	3.50	4.00	5.75
Wind Exposure D	4.00	5.00	6.50

### Other Gate Elements:

Truss - 1/4" diameter tension cable, minimum.

Chain Link Fabric - As per Quality Fence Builders, Inc. specification.

Upright - 2" square Aluminum section.

Bottom Rail - 2" X 4" Aluminum section.

# Rupert Engineering, Inc.

CONSULTING ENGINEERS CIVIL AND STRUCTURAL

1519 West Valley Highway North Suite 101/Auburn, WA 98001  
Post Office Box 836/Auburn, WA 98071  
253-833-7775 Fax 253-933-2168

JOB 06023 QUALITY FENCE 30 ALSS SINGLE/DOUBLE TRACK  
SHEET NO. 2 OF 2  
CALCULATED BY TCL DATE MAR, 06  
CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
SCALE \_\_\_\_\_

## Brief:

The aluminum cantilever gates (Quality Fence Builders, Inc) will be designed for the following load conditions and assumptions. The design shall conform to the design codes of IBC 2003 and ASCE7. The design loads are noted in the following:

## Assumptions:

1. Cantilever Gate Track - Material: Aluminum 6061-T6

$F_y$  = Ult. Tensile Yield Strength = 35.0 Ksi ( $F_{y,alt}$  = 19.0 Ksi) Compressive Modulus of Elasticity,  $E$  = 10,100,000 Ksi  
 $F_c$  = Ult. Compressive Strength = 35.0 Ksi ( $F_{c,alt}$  = 21.0 Ksi)  $F_u$  = Ult. Shear Strength = 20.0 Ksi

2. Gates will be "OPEN STRUCTURE". The wind directionality factor,  $K_d$  = 0.85 per ASCE7-05 Table 6-4.

3. A minimum single concentrated load of 200 lbs due to vehicle impact per ASCE7-05 Section 4.4.1.

4. The gate weights and section properties are noted in the attached calculations.

5. Gate Weight are noted in the following and given by Quality Fence Builders, Inc.

Height	Opening Length, L (Dead Load Weight unit in POUNDS.)				
	10'-0"	20'-0"	30'-0"	40'-0"	50'-0"
6'-0"	251.0	465.0	629.0	1145.0	1413.0
7'-0"	273.0	488.0	660.0	1185.0	1465.0
8'-0"	285.0	510.0	691.0	1227.0	1517.0

## Design Loads:

### Wind (Per ASCE7)

The building and structural classification category II will be used for the cantilever gate design. ( gust Effect Factor,  $G$  = 0.85 )

Wind Exposure	B	B	B	B	C	C	C	C	D	D	D	D
Wind Speed (mph) =	85.0	100.0	150.0	170.0	85.0	100.0	150.0	170.0	85.0	100.0	150.0	170.0
Wind directionality factor, $K_d$ =	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Importance factor, $I$ =	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Velocity pressure coeff, $K_z$ = ( $H < 15'$ )	0.70	0.70	0.70	0.70	0.85	0.85	0.85	0.85	1.03	1.03	1.03	1.03
Topographic factor, $K_{zt}$ =	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Velocity pressure, $q_z$ = $0.00256 K_z K_{zt} K_d V^2 I$	11.0	15.2	34.3	44.0	13.4	18.5	41.6	53.5	16.2	22.4	50.4	64.8
Per ASCE7 Sec 6.5.15 Design Wind pressure												
Force Coefficient, $C_f$ = (ASCE7 Fig 6-22)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
$F = q_z G C_f$ (lbs/ft <sup>2</sup> ) =	18.7	25.9	58.3	74.8	22.7	31.4	70.7	90.9	27.5	35.1	85.7	110.1

### Seismic (Per IBC 2003 & ASCE7)

Seismic Zone C	Seismic Zone D	Seismic Zone E
$S_s$ = 1.2500	1.2500	1.2500
$F_a$ = 1.0000	1.0000	0.9000
$S_{ms}$ = 1.2500	1.2500	1.1250
$S_{ps}$ = 0.8333	0.8333	0.7500

Per section 1622.1 2003 IBC & ASCE Section 9.14

EQ (13.3-1)  $F_p = 0.4 \cdot a_p \cdot S_{ps} \cdot I_p \cdot (1+2 z/h) \cdot W_p / R_p =$  Zone C & D Zone E  
EQ (13.3-2)  $F_p = 1.6 \cdot S_{ps} \cdot I_p \cdot W_p =$  1.33 1.20  
EQ (13.3-3)  $F_p = 0.3 \cdot S_{ps} \cdot I_p \cdot W_p =$  0.25 0.23

Per ASCE Table 13.5-1 for gate as sign or Billboard

$a_p = 2.5$   $I_p = 1.00$   
 $R_p = 2.5$   
 $z/h = 1.0$

Use  $F_p = 1.000 W_p$  for seismic zone C, D & E

Horizontal load (Kips) at tip of cantilever gate track.

Height	Gate track length				
	10'-0"	20'-0"	30'-0"	40'-0"	50'-0"
6'-0"	0.261	0.465	0.629	1.145	1.413
7'-0"	0.273	0.488	0.660	1.185	1.465
8'-0"	0.285	0.510	0.691	1.227	1.517

## Scope of Design

1. The design report includes the design/analysis of the single/double cantilevered track gate under gravity/lateral - wind & seismic loads.
2. The gate connection design will not be included in this design calculations.
3. Post Footing Design is included in this design report.

# Rupert Engineering, Inc.

CONSULTING ENGINEERS/CIVIL AND STRUCTURAL

1519 West Valley Highway North/Suite 101/Auburn, WA 98001  
Post Office Box 836/Auburn, WA 98001  
253-833-7776 Fax 253-839-2168

JOB 06023

SHEET NO

5

OF

CALCULATED BY

TCL

DATE

APR, 06

CHECKED BY

DATE

SCALE

Single Track (Opening length = 10'-0" to 30'-0")

Section Properties:

A (in <sub>2</sub> ) =	3.80	S <sub>xx</sub> (in <sup>3</sup> ) =	2.258	(For Minor Axis Bending)
I <sub>xx</sub> (in <sup>4</sup> ) =	3.00	S <sub>yy</sub> (in <sup>3</sup> ) =	3.932	(For Major Axis Bending)
I <sub>yy</sub> (in <sup>4</sup> ) =	9.30	Allowable Yield Strength =	19.0	Ksi
X <sub>cg</sub> (in) =	2.3	Allowable Comp. Strength =	21.00	Ksi
Y <sub>cg</sub> (in) =	1.50	Allowable Shear =	12.0	Ksi
B (in) =	4.73			
D (in) =	2.55			

Single Track Cantilever Gate - Bending due to GRAVITY LOADS, WIND LOAD & SEISMIC LOAD (See RISA Output)

Exposure B	85 mph	100 mph	150 mph	170 mph
Track Moment, M (ft-K) =	4.56	6.27	14.12	18.11
Required Section Modulus =	2.89	3.96	8.92	11.44
Provided Section Modulus	3.93	3.93	3.93	3.93
Track Tip Displacement (in) =	0.50	0.70	1.57	2.02
Allowable Displacement, L/180 = 30*12/180 = 2.0"	O.K.	O.K.	O.K.	Displ. Exceeds
Post Axial, P <sub>y</sub> (Kips) =	1.23	1.23	1.23	1.23
Horiz Force, P <sub>x</sub> (Kips) =	3.04	3.04	3.04	3.04
Horiz Force, P <sub>z</sub> (Kips) =	1.25	1.73	3.90	5.00
Exposure C	85 mph	100 mph	150 mph	170 mph
Track Moment, M (ft-K) =	5.5	7.61	20.40	22.00
Required Section Modulus =	3.47	4.81	12.88	13.89
Provided Section Modulus	3.93	3.93	3.93	3.93
Track Tip Displacement (in) =	0.51	0.80	2.27	2.45
Allowable Displacement, L/180 = 30*12/180 = 2.0"	O.K.	O.K.	Displ. Exceeds	Displ. Exceeds
Post Axial, P <sub>y</sub> (Kips) =	1.23	1.23	1.23	1.23
Horiz Force, P <sub>x</sub> (Kips) =	3.04	3.04	3.04	3.04
Horiz Force, P <sub>z</sub> (Kips) =	1.52	2.10	5.63	6.07
Exposure D	85 mph	100 mph	150 mph	170 mph
Track Moment, M (ft-K) =	6.55	9.06	20.4	26.2
Required Section Modulus =	4.14	5.72	12.88	16.55
Provided Section Modulus	3.93	3.93	3.93	3.93
Track Tip Displacement (in) =	0.73	1.01	2.27	2.92
Allowable Displacement, L/180 = 30*12/180 = 2.0"	O.K.	O.K.	Displ. Exceeds	Displ. Exceeds
Post Axial, P <sub>y</sub> (Kips) =	1.23	1.23	1.23	1.23
Horiz Force, P <sub>x</sub> (Kips) =	3.04	3.04	3.04	3.04
Horiz Force, P <sub>z</sub> (Kips) =	1.31	2.50	5.63	7.23

## Summary

The 30 feet single cantilever track will be satisfactory for the following load conditions:

Wind Exposure/Wind Speed	85 mph	100 mph	150 mph	170 mph
Wind Exposure B	O.K.	O.K.	NOT APPLICABLE	NOT APPLICABLE
Wind Exposure C	O.K.	O.K.	NOT APPLICABLE	NOT APPLICABLE
Wind Exposure D	O.K.	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE

# Rupert Engineering, Inc.

CONSULTING ENGINEERS/CIVIL AND STRUCTURAL

1519 West Valley Highway North/Suite 101/Auburn, WA 98001  
Post Office Box 836/Auburn, WA 98071  
253-833-7778 Fax 253-939-2168

JOB 06023 QUALITY FENCE  
SHEET NO. 6 OF         
CALCULATED BY TCL DATE MAR, 06  
CHECKED BY        DATE         
SCALE       

Double Track (Opening length = 30'-0" to 50'-0")

Section Properties:

A (in <sup>2</sup> ) =	6.95	S <sub>xx</sub> (in <sup>3</sup> ) =	4.715	(For Minor Axis Bending)
I <sub>xx</sub> (in <sup>4</sup> ) =	6.20	S <sub>yy</sub> (in <sup>3</sup> ) =	11.707	(For Major Axis Bending)
I <sub>yy</sub> (in <sup>4</sup> ) =	52.63	Allowable Yield Strength =	19.0	Ksi
X <sub>cg</sub> (in) =	4.59	Allowable Comp. Strength =	21.0	Ksi
Y <sub>cg</sub> (in) =	1.41	Allowable Shear =	12.0	Ksi
B (in) =	9.00			
D (in) =	2.63			

**Double Track Cantilever Gate - Bending due to GRAVITY LOADS, WIND LOAD & SEISMIC LOAD (See RISA Output)**

Exposure B	85 mph	100 mph	150 mph	170 mph
Track Moment, M (ft-K) =	6.73	9.24	19.50	27.60
Required Section Modulus =	4.25	5.84	12.00	17.05
Provided Section Modulus	11.71	11.71	11.71	11.71
Track Tip Displacement (in) =	0.41	0.57	1.28	1.65
Allowable Displacement, L/180 = 50*12/180 = 3.3"	O.K.	O.K.	O.K.	O.K.
Post Axial, P <sub>y</sub> (Kips) =	3.13	3.14	3.14	3.14
Horiz Force, P <sub>x</sub> (Kips) =	9.83	9.83	9.83	9.83
Horiz Force, P <sub>z</sub> (Kips) =	2.64	3.65	8.23	10.55
Exposure C	85 mph	100 mph	150 mph	170 mph
Track Moment, M (ft-K) =	8.17	11.20	25.20	32.70
Required Section Modulus =	5.16	7.07	15.92	20.65
Provided Section Modulus	11.71	11.71	11.71	11.71
Track Tip Displacement (in) =	0.50	0.63	1.56	2.00
Allowable Displacement, L/180 = 50*12/180 = 3.3"	O.K.	O.K.	O.K.	O.K.
Post Axial, P <sub>y</sub> (Kips) =	3.13	3.13	3.13	3.13
Horiz Force, P <sub>x</sub> (Kips) =	9.83	9.83	9.83	9.83
Horiz Force, P <sub>z</sub> (Kips) =	3.20	4.43	10.00	12.81
Exposure D	85 mph	100 mph	150 mph	170 mph
Track Moment, M (ft-K) =	10.1	13.56	31.4	40.3
Required Section Modulus =	6.38	8.82	19.83	25.45
Provided Section Modulus	11.71	11.71	11.71	11.71
Track Tip Displacement (in) =	0.616	0.854	1.92	2.47
Allowable Displacement, L/180 = 50*12/180 = 3.3"	O.K.	O.K.	O.K.	O.K.
Post Axial, P <sub>y</sub> (Kips) =	3.13	3.13	3.13	3.13
Horiz Force, P <sub>x</sub> (Kips) =	9.83	9.83	9.83	9.83
Horiz Force, P <sub>z</sub> (Kips) =	3.95	5.47	12.30	15.80

## Summary

The 50 feet double cantilever track will be satisfactory for the following load conditions:

Wind Exposure/Wind Speed	85 mph	100 mph	150 mph	170 mph
Wind Exposure B	O.K.	O.K.	O.K.	NOT APPLICABLE
Wind Exposure C	O.K.	O.K.	NOT APPLICABLE	NOT APPLICABLE
Wind Exposure D	O.K.	O.K.	NOT APPLICABLE	NOT APPLICABLE

## **Wind Exposure Category**

Exposure Category refers to the characteristics of the ground surface specific to a building's physical location. These characteristics include natural topography, vegetation, adjacent structures and proximity to large bodies of water.

### **Exposure Category A**

American Society of Civil Engineers identifies an urban area as a large city center with at least 50 percent of the buildings having a height in excess of 70 feet. Construction sites meeting these criteria are considered to be located in Exposure Category A.

### **Exposure Category B**

Smaller urban and suburban areas, according to ASCE, have "numerous closely spaced obstructions having the size of single-family dwellings or larger." These obstructions, which can include a densely wooded area as opposed to a manufactured structure, must be within 1,500 feet of the proposed structure in the upwind direction.

### **Exposure Category C**

Described by ASCE as "Open terrain with scattered obstructions having heights generally less than 30 feet (9.1 meters)." This category often becomes the default description of site, as it presumes no significant obstructions in the windward direction. If a site visit cannot be done, or if the information gathered is questionable, an Exposure Category C classification is a safe assumption.

### **Open water sites**

Located within 15,000 feet of an open body of water and be directly exposed to winds flowing over that water. Areas in this category (Exposure Category D) are located near the Great Lakes, an inland waterway or on the coast of California, Washington, Oregon and Alaska.



# Rupert Engineering, Inc.

CONSULTING ENGINEERS/CIVIL AND STRUCTURAL

1510 West Valley Highway North, Suite 101A, Idaho Falls, ID 83403  
 Post Office Box 2000, Idaho Falls, ID 83403  
 208-333-7275 Fax 208-333-7163

FOR 30' GATE QUANTITY PRICE SINGLE/DOUBLE  
Track  
 SHEET NO. 2 OF 2  
 CALCULATED BY TCL DATE MAY 1, 03  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 SCALE \_\_\_\_\_

## Brief:

The aluminum cantilever gates (Quality Fence Builders, Inc) will be designed for the following load conditions and assumptions. The design shall conform to the design codes of IBC 2003 and ASCE7. The design loads are noted in the following:

## Assumptions:

1. Cantilever Gate Track - Material: Aluminum 6061-T6

$F_u$  = Ult. Tensile Yield Strength = 32.0 Ksi ( $F_{u,at}$  = 18.0 Ksi) Compressive Modulus of Elasticity,  $E$  = 10,000 Ksi  
 $F_{cy}$  = Ult. Compressive Strength = 33.0 Ksi ( $F_{cy,at}$  = 21.0 Ksi)  $F_{uv}$  = Ult. Shear Strength = 20.0 Ksi

2. Gates will be "OPEN STRUCTURE". The wind directionality factor,  $K_d$  = 0.85 per ASCE7-05 Table S-4.

3. A minimum single concentrated load of 200 lbs due to vehicle impact per ASCE7-05 Section 4.4.1.

4. The gate weights and section properties are noted in the attached calculations.

5. Gate Weight are noted in the following and given by Quality Fence Builders, Inc.

Height	Opening Length, L (Dead Load Weight unit in POUNDS.)				
	10'-0"	20'-0"	30'-0"	40'-0"	50'-0"
6'-0"	231.0	465.0	699.0	1143.0	1413.0
7'-0"	273.0	498.0	747.0	1185.0	1455.0
8'-0"	285.0	510.0	765.0	1227.0	1517.0

## Design Loads:

### Wind (Per ASCE7)

The building and structure classification category,  $C$ , shall be used for the cantilever gate design. (Gust Effect Factor,  $G$  = 0.85)

Wind Exposure	B	B	B	B	C	C	C	C	D	D	D	D
Wind Speed (mph) =	35.0	40.0	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0	90.0
Wind directionality factor, $K_d$ =	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Importance factor, $I$ =	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Velocity pressure coeff, $K_z$ = (H < 15')	0.75	0.70	0.70	0.70	0.70	0.35	0.35	0.35	0.35	1.03	1.03	1.03
Topographic factor, $K_{zt}$ =	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Velocity pressure, $q_z$ = 0.00256 $K_z K_{zt} K_d V^2$	11.0	15.2	24.3	34.0	44.0	55.0	66.0	77.0	88.0	100.0	111.0	122.0
Per ASCE7 Sec. 6.5.15 Design Wind pressure												
Force Coefficient, $C_f$ = (ASCE7 6.5.11)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
$F = q_z C_f C_{pe}$ (lbs/ft <sup>2</sup> ) =	15.7	26.9	39.0	52.0	66.0	80.0	95.0	110.0	125.0	140.0	155.0	170.0

### Seismic (Per IBC 2003 & ASCE7)

Seismic Zone C	Seismic Zone D	Seismic Zone E
$S_s$ = 1.2500	1.2500	1.2500
$S_1$ = 1.0000	1.0000	0.7500
$S_{ds}$ = 1.2500	1.2500	1.2500
$S_{d1}$ = 0.8333	0.8333	0.7500

Per section 1622.1 2003 IBC & ASCE Section 3.14

EQ (13.3-1)  $F_p$  =  $0.4 \cdot A_{se} \cdot S_{ds} \cdot I_p \cdot (1 + 2z/h) \cdot W_p/R_3$  = 1.000 0.900

EQ (13.3-2)  $F_p$  =  $1.6 \cdot S_{ds} \cdot I_p \cdot W_p$  = 1.33 1.20

EQ (13.3-3)  $F_p$  =  $0.3 \cdot S_{ds} \cdot I_p \cdot W_p$  = 0.25 0.23

Per ASCE Table 13.5-1 for gate as sign or billboard

$a_p$  = 2.5  $L_p$  = 1.00

$R_3$  = 2.5

$z/h$  = 1.0

Use  $F_p$  = 1.000  $W_p$  for seismic zone C, D & E

Horizontal load (Kips) at tip of cantilever gate track:

Height Gate track length					
	10'-0"	20'-0"	30'-0"	40'-0"	50'-0"
6'-0"	0.281	0.465	0.649	1.145	1.413
7'-0"	0.273	0.468	0.680	1.185	1.455
8'-0"	0.285	0.510	0.691	1.227	1.517

## Scope of Design

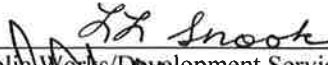

1. The design report includes the design/analysis of the single/double cantilevered track gate under gravity/lateral - wind & seismic loads.
2. The gate connection design will not be included in this design calculations.
3. Post Footing Design is included in this design report.

# CITY OF BROOKINGS

## COUNCIL AGENDA REPORT

Meeting Date: October 26, 2015

Originating Dept: PWDS

  
Public Works/Development Services Director  
  
City Manager Approval

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Subject: Intergovernmental Agreement (IGA) with Oregon Department of Transportation (ODOT) for Art in the Right of Way (ROW).

Recommended Motion: Authorize the City Manager to execute an IGA between the City and ODOT to allow for artwork to be placed within the ROW of Highway 101.

Financial Impact: none

Background /Discussion:

For many years the City has encouraged and sponsored the “Avenue of the Flags” along the Highway 101 corridor on Holidays and during special events. It was understood that the majority of the flags were located in the ODOT ROW however it was not known that this activity required a permit.

In 2013, when the Evergreen Bears visited from Grants Pass, it was brought to the City’s attention by ODOT that siting the Bears would require a permit from ODOT through an intergovernmental agreement to allow artwork in the ROW.

Efforts were made to locate the Bears on private property rather than in the ROW for their 2014 visit. An inspection by ODOT revealed that there were minor encroachments into the ROW. The decision was made to apply for the ROW permit and to also include the Avenue of the Flags under the permit.

ODOT has reviewed the application and has generated the attached IGA to permit the Flags as well as the Evergreen Bears should they make a return to Brookings in the future.

Policy Considerations: None

Attachment(s):

- a. Intergovernmental agreement

**INTERGOVERNMENTAL AGREEMENT  
American Flag & Evergreen Bear Artwork on US 101**

**THIS AGREEMENT** is made and entered into by and between the STATE OF OREGON, acting by and through its Department of Transportation, hereinafter referred to as "State;" and the CITY OF BROOKINGS, acting by and through its elected officials, hereinafter referred to as "Agency," both herein referred to individually or collectively as "Party" or "Parties."

**RECITALS**

1. By the authority granted in Oregon Revised Statute (ORS) 190.110, state agencies may enter into agreements with units of local government for the performance of any or all functions and activities that a party to the agreement, its officers, or agents have the authority to perform.
2. Oregon Coast Highway (US 101) is part of the state highway system under the jurisdiction and control of the Oregon Transportation Commission (OTC).

**NOW THEREFORE**, the premises being in general as stated in the foregoing Recitals, it is agreed by and between the Parties hereto as follows:

**TERMS OF AGREEMENT**

1. Under such authority, State and Agency agree to Agency installing, removing and maintaining American flags (in existing receptacles within the sidewalks) and Evergreen Bears along US 101, hereinafter referred to as "Project." The location of the Project is approximately as shown on the sketch map attached hereto, marked Exhibit A, and by this reference made a part hereof.
2. Agency is solely responsible for all costs association with installation, removal and maintenance of the American flags, hereinafter referred to as "Flags" and the Evergreen Bears, hereinafter referred to as "Bears".
3. The term of this Agreement shall begin on the date all required signatures are obtained and shall terminate on December 31, 2020, on which date this Agreement automatically terminates unless extended by a fully executed amendment.

**AGENCY OBLIGATIONS**

1. Agency shall install, maintain and remove Flags in existing receptacles installed within the sidewalks of US 101. Agency shall install the Flags during special events or holidays in the morning and shall remove the Flags before dark.
2. Agency shall remove any Flag displaying signs of wear or that has been defaced that within twenty-four (24) hours.

3. Agency shall install the Bears each spring and shall remove the Bears each fall. The number of Bears installed may vary but at no time shall Agency install more than sixteen (16) Bears.
4. Agency shall maintain the Bears as per a concrete pad with hold down bolts to withstand the wind loading in the area.
5. Agency shall remove any Bear that has been damaged or defaced within five (5) business days. Offensive graffiti must be removed within forty-eight (48) hours of discovery.
6. Agency shall obtain a miscellaneous permit to occupy State right of way through the District 7 Maintenance office.
7. Agency shall notify State's District 7 Maintenance office at least forty-eight (48) hours prior to on-site work.
8. All installation, removal or maintenance must be conducted in a manner to minimize interference with highway traffic and to control said traffic according to *Oregon Temporary Traffic Control Handbook* (OTTCH) and the *Manual on Uniform Traffic control Devices* (MUTCD).
9. Upon thirty (30) day notice from State, Agency shall remove the Flags or Bears at request of State for inspection, construction, maintenance, or operation of the state highway system. Upon completion of State's work, Agency will be notified that the Flags and Bears can be reinstalled. Agency understands that removal and reinstallation of the Flags and Bears will be the sole expense of Agency.
10. If Agency fails to maintain, repair, or remove the Flags and Bears as required, they may be removed by State at Agency's expense without commitment for restoration, replacement or compensation by State.
11. Agency shall not enter into any subcontracts for any of the work scheduled under this Agreement without obtaining prior written approval from State.
12. Agency shall comply with all federal, state, and local laws, regulations, executive orders and ordinances applicable to the work under this Agreement, including, without limitation, the provisions of ORS 279B.220, 279B.225, 279B.230, 279B.235 and 279B.270 incorporated herein by reference and made a part hereof. Without limiting the generality of the foregoing, Agency expressly agrees to comply with (i) Title VI of Civil Rights Act of 1964; (ii) Title V and Section 504 of the Rehabilitation Act of 1973; (iii) the Americans with Disabilities Act of 1990 and ORS 659A.142; (iv) all regulations and administrative rules established pursuant to the foregoing laws; and (v) all other applicable requirements of federal and state civil rights and rehabilitation statutes, rules and regulations.
13. Agency shall perform the service under this Agreement as an independent contractor and shall be exclusively responsible for all costs and expenses related to its

employment of individuals to perform the work under this Agreement including, but not limited to, retirement contributions, workers compensation, unemployment taxes, and state and federal income tax withholdings.

14. All employers, including Agency, that employ subject workers who work under this Agreement in the State of Oregon shall comply with ORS 656.017 and provide the required Workers' Compensation coverage unless such employers are exempt under ORS 656.126. Employers Liability insurance with coverage limits of not less than \$500,000 must be included. Agency shall ensure that each of its contractors complies with these requirements.
15. Agency shall require its contractor(s) and subcontractor(s) that are not units of local government as defined in ORS 190.003, if any, to indemnify, defend, save and hold harmless the State of Oregon, Oregon Transportation Commission and its members, Department of Transportation and its officers, employees and agents from and against any and all claims, actions, liabilities, damages, losses, or expenses, including attorneys' fees, arising from a tort, as now or hereafter defined in ORS 30.260, caused, or alleged to be caused, in whole or in part, by the negligent or willful acts or omissions of Agency's contractor or any of the officers, agents, employees or subcontractors of the contractor ("Claims"). It is the specific intention of the Parties that State shall, in all instances, except for Claims arising solely from the negligent or willful acts or omissions of the State, be indemnified by the contractor and subcontractor from and against any and all Claims.
16. Any such indemnification shall also provide that neither Agency's contractor and subcontractor nor any attorney engaged by Agency's contractor and subcontractor shall defend any claim in the name of the State of Oregon or any agency of the State of Oregon, nor purport to act as legal representative of the State of Oregon or any of its agencies, without the prior written consent of the Oregon Attorney General. The State of Oregon may, at anytime at its election assume its own defense and settlement in the event that it determines that Agency's contractor is prohibited from defending the State of Oregon, or that Agency's contractor is not adequately defending the State of Oregon's interests, or that an important governmental principle is at issue or that it is in the best interests of the State of Oregon to do so. The State of Oregon reserves all rights to pursue claims it may have against Agency's contractor if the State of Oregon elects to assume its own defense.
17. Agency certifies and represents that the individual(s) signing this Agreement has been authorized to enter into and execute this Agreement on behalf of Agency, under the direction or approval of its governing body, commission, board, officers, members or representatives, and to legally bind Agency.
18. Agency's Project Manager for this Project is LauraLee Snook, Public Works Development Services Director, 898 Elk Drive, Brookings, OR 97444, 541-469-1131, lsnook@brookings.or.us, or assigned designee upon individual's absence. Agency shall notify the other Party in writing of any contact information changes during the term of this Agreement.

## **STATE OBLIGATIONS**

1. State grants Agency the authority to enter State right of way for the installation, maintenance and removal of the Flags and Bears as provided for in miscellaneous permit to be issued by State's District 7 Office.
2. State shall, at least thirty (30) days prior to State's scheduled inspection, construction, maintenance, or operation work on the state highway system, notify Agency of need to remove Flags and Bears.
3. State reserves the right to remove the Flags and Bears if Agency fails to maintain, repair, or remove them as required. Such removal shall be conducted at Agency's expense without commitment for restoration, replacement or compensation by State.
4. State certifies, at the time this Agreement is executed, that sufficient funds are available and authorized for expenditure to finance costs of this Agreement within State's current appropriation or limitation of the current biennial budget.
5. State's Project Manager for this Project is Darrin Neavoll, District 7 Manager, 3500 NW Stewart Parkway, Roseburg, OR 97470, 541-957-3683, Darrin.I.neavoll@odot.state.or.us, or assigned designee upon individual's absence. State shall notify the other Party in writing of any contact information changes during the term of this Agreement.

## **GENERAL PROVISIONS**

1. This Agreement may be terminated by either Party upon thirty (30) days' notice, in writing and delivered by certified mail or in person.
2. State may terminate this Agreement effective upon delivery of written notice to Agency, or at such later date as may be established by State, under any of the following conditions:
  - a. If Agency fails to provide services called for by this Agreement within the time specified herein or any extension thereof.
  - b. If Agency fails to perform any of the other provisions of this Agreement, or so fails to pursue the work as to endanger performance of this Agreement in accordance with its terms, and after receipt of written notice from State fails to correct such failures within ten (10) days or such longer period as State may authorize.
3. Any termination of this Agreement shall not prejudice any rights or obligations accrued to the Parties prior to termination.
4. If any third party makes any claim or brings any action, suit or proceeding alleging a tort as now or hereafter defined in ORS 30.260 ("Third Party Claim") against State or Agency with respect to which the other Party may have liability, the notified Party



must promptly notify the other Party in writing of the Third Party Claim and deliver to the other Party a copy of the claim, process, and all legal pleadings with respect to the Third Party Claim. Each Party is entitled to participate in the defense of a Third Party Claim, and to defend a Third Party Claim with counsel of its own choosing. Receipt by a Party of the notice and copies required in this paragraph and meaningful opportunity for the Party to participate in the investigation, defense and settlement of the Third Party Claim with counsel of its own choosing are conditions precedent to that Party's liability with respect to the Third Party Claim.

5. With respect to a Third Party Claim for which State is jointly liable with Agency (or would be if joined in the Third Party Claim), State shall contribute to the amount of expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred and paid or payable by Agency in such proportion as is appropriate to reflect the relative fault of State on the one hand and of Agency on the other hand in connection with the events which resulted in such expenses, judgments, fines or settlement amounts, as well as any other relevant equitable considerations. The relative fault of State on the one hand and of Agency on the other hand shall be determined by reference to, among other things, the Parties' relative intent, knowledge, access to information and opportunity to correct or prevent the circumstances resulting in such expenses, judgments, fines or settlement amounts. State's contribution amount in any instance is capped to the same extent it would have been capped under Oregon law, including the Oregon Tort Claims Act, ORS 30.260 to 30.300, if State had sole liability in the proceeding.
6. With respect to a Third Party Claim for which Agency is jointly liable with State (or would be if joined in the Third Party Claim), Agency shall contribute to the amount of expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred and paid or payable by State in such proportion as is appropriate to reflect the relative fault of Agency on the one hand and of State on the other hand in connection with the events which resulted in such expenses, judgments, fines or settlement amounts, as well as any other relevant equitable considerations. The relative fault of Agency on the one hand and of State on the other hand shall be determined by reference to, among other things, the Parties' relative intent, knowledge, access to information and opportunity to correct or prevent the circumstances resulting in such expenses, judgments, fines or settlement amounts. Agency's contribution amount in any instance is capped to the same extent it would have been capped under Oregon law, including the Oregon Tort Claims Act, ORS 30.260 to 30.300, if it had sole liability in the proceeding.
7. The Parties shall attempt in good faith to resolve any dispute arising out of this Agreement. In addition, the Parties may agree to utilize a jointly selected mediator or arbitrator (for non-binding arbitration) to resolve the dispute short of litigation.
8. This Agreement may be executed in several counterparts (facsimile or otherwise) all of which when taken together shall constitute one agreement binding on all Parties, notwithstanding that all Parties are not signatories to the same counterpart. Each copy of this Agreement so executed shall constitute an original.

9. This Agreement and attached exhibits constitute the entire agreement between the Parties on the subject matter hereof. There are no understandings, agreements, or representations, oral or written, not specified herein regarding this Agreement. No waiver, consent, modification or change of terms of this Agreement shall bind either Party unless in writing and signed by both Parties and all necessary approvals have been obtained. Such waiver, consent, modification or change, if made, shall be effective only in the specific instance and for the specific purpose given. The failure of State to enforce any provision of this Agreement shall not constitute a waiver by State of that or any other provision.

**THE PARTIES**, by execution of this Agreement, hereby acknowledge that their signing representatives have read this Agreement, understand it, and agree to be bound by its terms and conditions.

**CITY OF BROOKINGS**, by and through its  
elected officials

By \_\_\_\_\_

Date \_\_\_\_\_

By \_\_\_\_\_

Date \_\_\_\_\_

**APPROVED AS TO LEGAL  
SUFFICIENCY**

By \_\_\_\_\_  
Counsel

Date \_\_\_\_\_

**Agency Contact:**

LauraLee Snook  
Public Works Development Services  
Director  
898 Elk Drive  
Brookings, OR 97444  
541-469-1131  
[lsnook@brookings.or.us](mailto:lsnook@brookings.or.us)

**STATE OF OREGON**, by and through  
its Department of Transportation

By \_\_\_\_\_

Region 3 Manager

Date \_\_\_\_\_

**APPROVAL RECOMMENDED**

By \_\_\_\_\_

District 7 Manager

Date \_\_\_\_\_

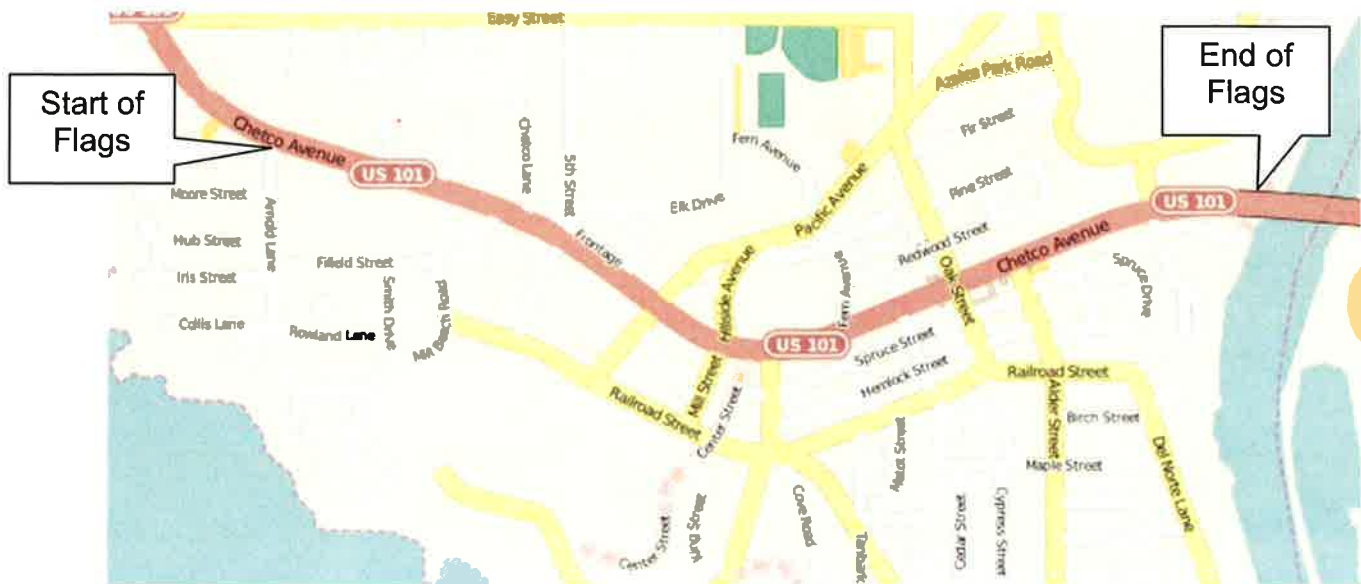
**State Contact:**

Darrin Neavoll  
District 7 Manager  
3500 NW Stewart Parkway  
Roseburg, OR 97470  
541-957-3683  
[Darrin.I.neavoll@odot.state.or.us](mailto:Darrin.I.neavoll@odot.state.or.us)

## EXHIBIT A



## American Flags Location


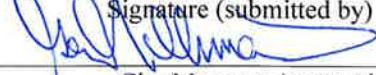


# CITY OF BROOKINGS

## COUNCIL AGENDA REPORT

Meeting Date: October 26, 2015

Originating Dept: PWD

  
\_\_\_\_\_  
Signature (submitted by)  
  
\_\_\_\_\_  
City Manager Approval

---

Subject: Memorandum of Understanding (MOU) regarding the private storm drain conveyance located at 815 Chetco Avenue (McDonalds).

Recommended Motion: Authorize the City Manager to execute an MOU with the McDonalds Corporation stipulating the City's acceptance of the private storm drain conveyance into the City storm water system after the repairs are completed.

Financial Impact:

City will assume future maintenance costs.

Background/Discussion:

A 36" storm drain culvert is located on the property and not located within an easement. The culvert is considered private as it is not within an easement per BMC 13.35.025.B.2.

McDonalds Corporation proposes to repair the culvert with an industry standard, and City approved, lining system. They further propose to provide an easement to the City of Brookings and relinquish future responsibility to the City.

Effective life of a lining repair can be up to 50 years, the City utilizes the same repair method on City owned infrastructure. McDonalds Corporation has provided an Engineers evaluation of the repair method, as well as a capacity analysis. The Engineers evaluation has been reviewed by the City Engineer (Dyer Partnership) who concurs with the analysis.

There is nothing in the current Storm Water Section of the Brookings Municipal Code that expressly requires that the conveyance be brought up to current code prior to being accepted into the City System. Prudence dictates that the City would require that a private conveyance be brought up to code **or** repaired in a manner that is satisfactory to the City.

Attachment(s):

- a. MOU
- b. Engineers Analysis
- c. Letter from McDonalds Attorney

## MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding ("MOU") is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2015, by and between the CITY OF BROOKINGS, Oregon, a municipal corporation of the State of Oregon (the "City"), and McDONALD'S CORPORATION and McDONALD'S REAL ESTATE COMPANY, as their interests may appear (collectively, "McDonald's"), for the purpose of establishing an agreement for drainage pipe upgrades and future maintenance, repair and replacement responsibility for the drainage pipe. This MOU is not a development agreement established pursuant to ORS 94.504-94.528.

### RECITALS

1. McDonald's is the owner of property generally located at 815 Chetco Avenue within the city limits of Brookings, Oregon (the "Property"). A McDonald's restaurant is currently located on the Property. A 36-inch diameter storm drainage line (the "drainage pipe") runs beneath the right-of-way of Chetco Avenue (U.S. Hwy. 101) and beneath the Property in a southwesterly direction, as shown on the enclosed 1990 grading plan. **Exhibit 1.**
2. The drainage pipe serves several up-stream public and private properties. It was in place prior to acquisition of the Property by McDonald's. The drainage pipe is constructed primarily of concrete but includes a metal section for its downstream-most 85 feet, before discharging from an outfall located on McDonald's southwest property line.
3. There are no catch basins or other drainage openings connecting the Property to the drainage pipe; therefore, the drainage pipe does not serve the Property. As the drainage pipe serves several upstream properties, including Highway 101, but not the Property itself, it functions as a public storm drainage line.
4. The drainage pipe is not currently failing but requires maintenance. McDonald's proposes to remove debris from the drainage pipe and re-line approximately 100 feet of the drainage pipe (which includes the entire metal section) with centrifugally cast concrete, in return for the City's acceptance of a public easement for the drainage pipe and long-term maintenance, repair and replacement responsibility. The proposed repair meets industry standards and a hydraulic analysis conducted by McDonald's indicates that it will not reduce the capacity of the drainage pipe. The City Public Works Director indicated in a letter dated July 29, 2015 that McDonald's proposed re-lining would be acceptable to the City.
5. The City also plans to re-line other upstream sections of the drainage pipe using a method similar to the centrifugal casting proposed by McDonald's.
6. The City has the authority to accept a public easement for the drainage pipe because it was constructed prior to the enactment of Brookings Municipal Code section 13.35.030 and other provisions that might otherwise prohibit the City from accepting ownership and/or maintenance responsibility for non-standard public improvements.
7. McDonald's presented an outline of the Agreement below in a letter to the City Public Works Director on September 28, 2015. **Exhibit 2.** The Brookings City Council voted to approve the essential aspects of the Agreement below on October 12, 2015.



NOW, THEREFORE, the parties agree to the following:

## **AGREEMENT**

**1. Repair of the Drainage Pipe.**

McDonald's will remove debris from the downstream-most 100 feet of the drainage pipe where it crosses the Property and re-line that section of pipe with centrifugally-cast concrete, at its own expense (the "repair"). The City agrees that this repair method is acceptable. This work will be subject to inspection and approval by the City Public Works Director, with such inspection being performed no later than 30 days following notification to the City of completion of the work. The City's approval of the repair shall not be unreasonably withheld.

**2. Public Storm Drainage Easement.**

Within 45 days of the City's approval of the repair, or, if the City decides not to inspect the repair, within 45 days following completion of the repair, McDonald's will grant, and the City will accept, a permanent public easement over the drainage pipe sufficient to provide for future access to the drainage pipe for the purpose of maintenance, repair and replacement. The easement will be subject to approval by the City Manager and McDonald's; such approval shall not be unreasonably withheld.

**3. The City's Future Maintenance, Repair and Replacement Responsibility.**

Upon recordation of the easement discussed above, and thenceforth, the City shall have all maintenance, repair and replacement responsibility for the drainage pipe. The City will exercise its maintenance, repair and replacement responsibilities reasonably to avoid damage to, or unreasonable disruption to the use and/or operation of, the Property.

**4. Parties to Cooperate and Act in Good Faith.**

The parties agree to cooperate as necessary to accomplish the tasks set forth in this MOU. Such cooperation includes, but is not limited to, the City promptly making available any public design, as-built, or survey documents related to the drainage pipe, and McDonald's providing design and product information to the City regarding the repair.

The parties agree to work in good faith to undertake and accomplish the tasks and obligations described herein, and others as may be reasonably necessary to effect the purpose and intent of the actions anticipated by this MOU.

**5. Entire Agreement.**

This MOU is the entire contract between the parties and constitutes a final and complete expression of the parties' intent regarding repair and future maintenance, repair and replacement responsibility of the drainage pipe, and no representations, inducements, promises, understandings or agreements (whether express or implied, or whether oral or written), made before the execution of this MOU will have any effect.



6. **Modification.**

This MOU may be changed only by a writing signed by both the City and McDonald's.

7. **Written Notice.**

Written notices shall be sent to the following:

FOR THE CITY OF BROOKINGS:

Ms. LauraLee Snook  
Pub. Works and Dev. Serv. Director  
City of Brookings  
898 Elk Drive  
Brookings, OR 97415

FOR MCDONALD'S CORP.:

McDonald's Corporation  
One McDonald's Plaza  
Oak Brook, IL 60523  
Attn.: Director, US Legal L/C 036-  
0115

8. **Successors and Assigns.**

The terms and conditions of this MOU shall bind and benefit both parties and their successors and assigns.

9. **Authority to Sign.**

Each signatory to this MOU acknowledges that the signatory has the full and complete authority to sign this MOU and bind its respective party.

10. **Governing Law.**

This MOU shall be interpreted under the laws of the State of Oregon.

11. **Effective Date.**

This MOU is effective upon the date of the last execution hereof.

IN WITNESS WHEREOF, the parties have signed this MOU below:

**City of Brookings, Oregon**

**McDonald's Corporation**

By: Mr. Gary Milliman

By: \_\_\_\_\_

Title: City Manager

Title: \_\_\_\_\_

Date \_\_\_\_\_

Date \_\_\_\_\_

**McDonald's Real Estate Company**

\_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date \_\_\_\_\_





1120 NW Couch Street  
10th Floor  
Portland, OR 97209-4128

T +1 503 727 2000  
F +1 503 727 2222  
PerkinsCoie.com

September 28, 2015

Garrett H. Stephenson  
GStephenson@perkinscoie.com  
D. +1.503.727.2042  
F. +1.503.346.2042

**VIA EMAIL**

LauraLee Snook  
Director of Public Works and Development Services  
City of Brookings  
898 Elk Drive  
Brookings, OR 97415

**Re: 815 Chetco Avenue Storm Drainage Pipe**

Dear Ms. Snook:

This law firm represents McDonald's Corporation. As you know, the McDonald's restaurant located at 815 Chetco Avenue (the "Property") has running beneath its parking lot a 36-inch storm drainage pipe that serves a substantial portion of the upgrade properties located northeast of the Property. The Property does not drain into, nor is it directly connected to, the drainage pipe. Over the last two years, the City of Brookings (the "City") and McDonald's have discussed the proper allocation of responsibility for maintaining the drainage pipe. This letter presents McDonald's proposal for an equitable and reasonable course of action that will ensure future maintenance of the pipe.

McDonald's is concerned about potential damage to the Property caused by a failure of this drainage pipe, and presumably the City is also concerned about potential liability should the pipe damage the Property or any surrounding properties. The City has taken the position that the drainage pipe is a "private storm drainage facility" as defined in Section 13.35.025.B.2 of the Brookings Municipal Code ("BMC"), and has refused to accept maintenance responsibilities for that reason. Notwithstanding that definition, the City is responsible for maintaining the pipe because the drainage line serves a purely public purpose and does not drain the Property. As the Property is not connected to the pipe and thus could not have caused any obstructions in the pipe, any requirement by the City that McDonald's maintain the pipe likely constitutes a taking of private property without just compensation under Article 1 § 18 of the Oregon Constitution and the Fifth Amendment of the U.S. Constitution. For this reason, McDonald's reserves any rights it may have to seek from the City reimbursement for any necessary repairs and/or contribution to pay any claims related to the drainage pipe.

McDonald's has conducted engineering studies demonstrating that the pipe does not need to be replaced at this time. McDonald's analysis was presented to the City, which indicated that it would allow relining of the pipe rather than replacement, but would not take ownership or


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maintenance responsibility because the pipe does not meet current City standards. We do not agree that the City may refuse to take maintenance responsibility for the line simply because it does not meet current standards. The pipe was constructed long before current City standards were established; therefore, it is not subject to the City's prohibition on the construction of non-standard storm drainage facilities, set forth in BMC 13.35.030.

As we discussed over the phone on September 21, 2015, we would like to reach an equitable solution for future maintenance of the drainage pipe. To that end, McDonald's offers to pay to reline the drainage pipe to prevent any further degradation and grant the City an express public easement for the drainage line. In return, McDonald's requests that the City accept all further maintenance responsibility for the pipe.

Although we disagree with the City's current position on this issue, we appreciate the cordiality that the City has shown in this matter, and hope that we can come to an agreement that is reasonable in light of the pipe's public function. In view of the oncoming rainy season, we respectfully request that the City provide at least an initial response to our proposal by the close of business on October 2, 2015.

Best regards,



Garrett H. Stephenson

GHS:GHS

cc: Ms. Stephanie Hipp (via email)  
Ms. Glenda Hollenbeck (via email)  
Mr. Adam Brandenburg (via email)  
Ms. Martha Rice (via email)  
Mr. Mark Whitlow, Perkins Coie (via email)  
Mr. Cody Weston, Perkins Coie (via email)



July 20, 2015  
Email: Adam.Brandenburg@us.mcd.com

Adam Brandenburg  
Area Construction Manager  
McDonald's USA, LLC  
Northwest Regional Office  
12131 - 113th Avenue N.E., Suite 103  
Kirkland, WA 98034

RE: Storm Drainage Pipe Capacity Analysis  
McDonald's Facility, Brookings, Oregon  
Our Job No. 16902

Dear Adam:

At your request, I provided an evaluation of the capacity for an existing storm pipe that crosses the McDonald's parcel located on the Oregon Coast Highway in Brookings, Oregon. Specifically, you requested that I evaluate the capacity comparison between an existing 36-inch-diameter corrugated metal pipe with the capacity of this same pipe lined with cement mortar.

It is my understanding that the company providing the anticipated lining is CentriPipe System. I reviewed the documentation from CentriPipe and enclosed within this letter is a portion of the engineering design guide which provides the specifics for this pipe capacity analysis.

The existing pipe that passes through this parcel is an old 36-inch-diameter corrugated metal pipe according to the original design plan prepared by a Mr. Kenneth Nelson dated October 10, 1990. It is my understanding McDonald's USA, LLC, as well as the supplier of this material, are anticipating providing a 2-inch-thick cement liner within this 36-inch-diameter corrugated metal pipe in accordance with the CentriPipe System process. Furthermore, the City of Brookings would like an evaluation done for capacity to determine whether any capacity reduction occurs with this process.

The approximate slope of this existing 36-inch-diameter corrugated metal pipe is 2.17 percent slope based on the elevation shown on the above-referenced design plan. The typical 36-inch-diameter corrugated metal pipe laid at that slope has a flowing full capacity of roughly 53.2 cubic feet per second (cfs). This is based on a Manning's roughness coefficient ('n' factor) that is approximately 0.024, being conservative.

A 36-inch-diameter corrugated metal pipe with a cement lining of approximately 2 inches thickness would reduce the nominal diameter to 32 inches. The roughness coefficient ('n' factor) based on the attached analysis by CentriPipe System, would be approximately 0.017. Please see the bottom of page 27 on the parcel enclosure design guideline from CentriPipe System. The flowing full capacity of a 32-inch-diameter culvert with that above-referenced 'n' factor would have a discharge at flowing full of approximately 56.5 cfs. Therefore, the capacity of the 32-inch-diameter culvert will be slightly greater than a 36-inch-diameter existing condition culvert.

In conclusion, it is my opinion, the proposed lining method done in accordance with the CentriPipe System should provide an end result capacity of the pipe to be equal to or greater than the existing 36-inch-diameter corrugated metal pipe, assuming a 2-inch thick layer is installed as recommended.



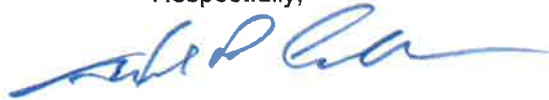
Adam Brandenburg  
Area Construction Manager  
McDonald's USA, LLC  
Northwest Regional Office

-2-

July 20, 2015

Please contact me if you should have any questions or comments regarding the information enclosed.

Respectfully,



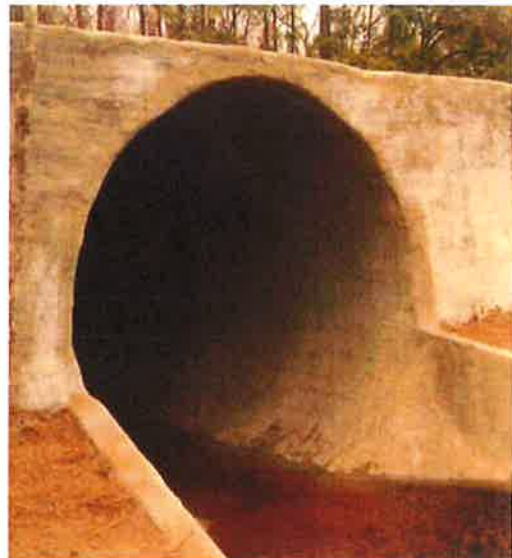
Hal P. Grubb, P.E.  
Director of Engineering Services

HPG/dm/ca  
16902c.002.doc  
enc: As Noted





**ENGINEERING DESIGN GUIDE**  
for  
**TRENCHLESS PIPE and CULVERT RENEWAL**  
using the  
**CentriPipe® System**



For **large span and non-circular flexible host pipe structures** where the spread of the live load is greater than the span of the host pipe, the design engineer should analyze the entire top arc as a hinged arch using the following equation:

$$t = \sqrt{\frac{0.0372Pr^2}{\sigma_F/FS}} \quad (15)$$

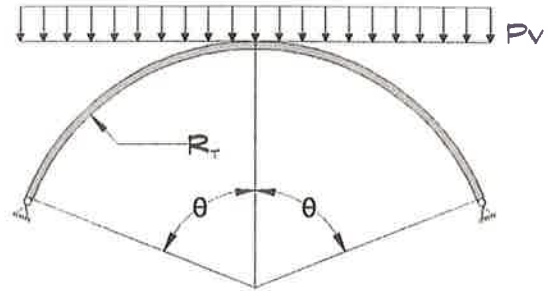
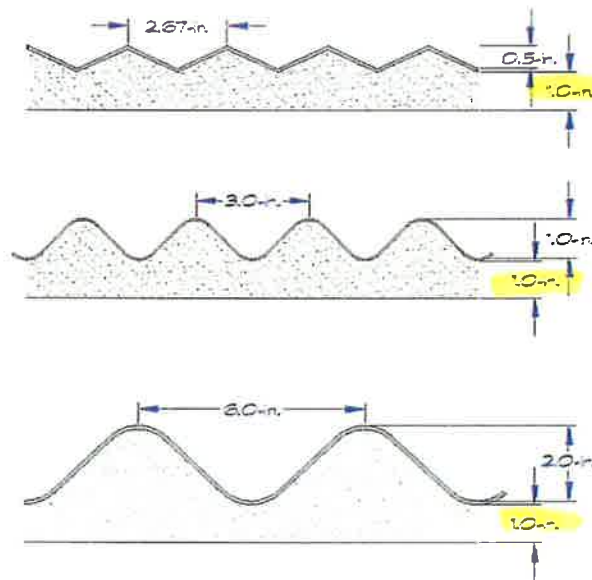


Figure 8 - Top Arc under a Distributed Load

3. The **minimum specified wall thickness shall be 0.5-inches** or the thickness found in step 2 above rounded up to the nearest 0.5-inch incremental value. In addition, the minimum cover over the top of the bolts for metallic plate structures should be no less than 0.5-inches



It is important for the design engineer to recognize how a visual inspection of the host pipe can reveal a lot of valuable information about the existing installation. Buried pipes that are intact and exhibiting their initially installed geometry (pipe shape) are indicative of a good installation that is correct for the loads that they have experienced to date. Metallic pipes that have lost their inverts due to corrosion but retained their installed geometry are indicative of the load transfer that has taken place where the dead and/or live loading conditions are currently being borne by the surrounding soil. If the rehabilitation of the subject pipe is executed before the lateral support soils are weakened by hydraulic migration of these support soils, the new liner merely needs to resist any future dead loads (e.g. additional cover depth) and any live loading.

Use of an allowable fracture width in the ranges recommended for the wall thickness design produces a CentriPipe wall that is compatible with the stress-strain characteristics of the host pipe-soil structure interaction system. While actual cracking of the liner in service should be quite rare when a factor of safety of 2.0 (or more) is employed; any cracking that does occur should be well within the range for which self-closure of the liner could occur.

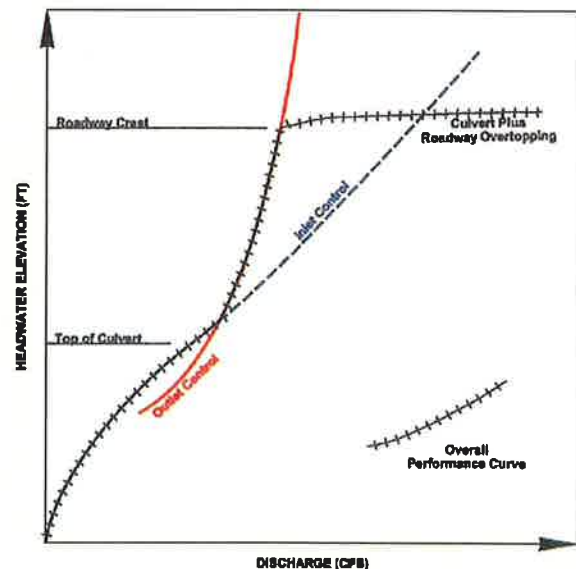
Pipes that do not have the recommended minimum cover depth per the pipe manufacturer will require a more detailed analysis to produce a proper solution. The design engineer should consult AP/M PERMAFORM's engineering for additional discussion on this subject.

NOTE: The thickness of the CentriPipe wall is measured from the crest of the corrugations for corrugated metal pipe structures. The rationale for this is; 1) in so placing the liner in the host pipe the hydraulic performance after lining will be maximized, 2) the tensile strain seen at the interior wall surface will be more uniform (area wise) which is quite important if the pipe is bolted together, and 3) the finished liner will be less subject to the impact of floating debris. Also, the minimum cover over the top of the bolts for metallic plate structures should be no less than 0.5-inches.

the headwater depth or elevation versus the flow rate. In developing a culvert performance curve, both the inlet control and the outlet control curves must be plotted. This is necessary because the dominant control at a given headwater is hard to predict. Also, control may shift from the inlet to the outlet, or vice-versa, over a range of flow rates. Figure YY illustrates a typical culvert performance curve. At the design headwater, the culvert operates under inlet control. With inlet improvement the culvert performance can be increased to take better advantage of the culvert barrel capacity.

Table 3	
Entrance Loss Coefficients for Corrugated Steel Pipes or Arches	
Inlet End of Culvert	Coefficient $K_e$
Projecting from fill (no headwall)	0.9
Headwall, or headwall and wingwalls square-edged	0.5
Mitered (beveled) to conform to fill slope	0.7
*End section conforming to fill slope	0.5
Headwall, rounded edge	0.2
Beveled Ring	0.25
*End sections available from manufacturers	

The answer to the capacity question raised above must be answered by constructing the culvert performance curve for the existing conditions and compare that to the culvert performance curve constructed for the post lining conditions. If the headwater elevation is found to be greater after lining, then what inlet end improvement can be employed to reduce it to the before condition? Specify that end improvement for the lining; and with that requirement, the capacity change will be nil. For CentriPipe liners placed in corrugated metal pipes the outlet condition portion after lining will almost always produce much lower headwater values for a given flow discharge rate. However, if the host pipe structure has a roughness value equal to or less than that of the resultant liner, the outlet condition portion of the curve will indicate a higher headwater condition after lining for this range of flow values. This may, or may not be a problem to the owner of the pipe culvert as the size of storm required to produce flows in this range of the performance curve may be rare or in some cases not likely to occur at all.



As of the writing of this guide, there has been no testing undertaken to date to show the range of the Manning roughness value for the typical wall surface finishes produced by the CentriPipe liner application process. In the interim, it is advised to use a value of 0.017; which is in keeping with a projected "n" value in the range of 0.013 to 0.020.

## 36 inch CMP

### Project Description

Friction Method	Manning Formula
Solve For	Discharge

### Input Data

Roughness Coefficient	0.024	
Channel Slope	0.02170	ft/ft
Normal Depth	3.00	ft
Diameter	3.00	ft

### Results

Discharge	53.22	ft³/s
Flow Area	7.07	ft²
Wetted Perimeter	9.42	ft
Hydraulic Radius	0.75	ft
Top Width	0.00	ft
Critical Depth	2.37	ft
Percent Full	100.0	%
Critical Slope	0.02328	ft/ft
Velocity	7.53	ft/s
Velocity Head	0.88	ft
Specific Energy	3.88	ft
Froude Number	0.00	
Maximum Discharge	57.25	ft³/s
Discharge Full	53.22	ft³/s
Slope Full	0.02170	ft/ft
Flow Type	SubCritical	

### GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

### GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	100.00	%
Downstream Velocity	Infinity	ft/s

## 32 inch culvert

### Project Description

Friction Method                      Manning Formula  
Solve For                                Discharge

### Input Data

Roughness Coefficient                      0.017  
Channel Slope                                0.02170    ft/ft  
Normal Depth                                2.66    ft  
Diameter                                      2.67    ft

### Results

Discharge                                      56.51    ft<sup>3</sup>/s  
Flow Area                                      5.60    ft<sup>2</sup>  
Wetted Perimeter                              8.06    ft  
Hydraulic Radius                              0.69    ft  
Top Width                                      0.33    ft  
Critical Depth                                2.43    ft  
Percent Full                                    99.6    %  
Critical Slope                                0.01998    ft/ft  
Velocity                                        10.10    ft/s  
Velocity Head                                1.58    ft  
Specific Energy                                4.24    ft  
Froude Number                                0.43  
Maximum Discharge                            59.23    ft<sup>3</sup>/s  
Discharge Full                                55.06    ft<sup>3</sup>/s  
Slope Full                                      0.02285    ft/ft  
Flow Type                                      SubCritical

### GVF Input Data

Downstream Depth                            0.00    ft  
Length                                        0.00    ft  
Number Of Steps                                0

### GVF Output Data

Upstream Depth                                0.00    ft  
Profile Description                                
Profile Headloss                                0.00    ft  
Average End Depth Over Rise                0.00    %  
Normal Depth Over Rise                        99.63    %  
Downstream Velocity                            Infinity    ft/s



October 21, 2015

Garrett H. Stephenson  
GStephenson@perkinscoie.com  
D +1.503.727.2042  
F +1.503.346.2042**VIA E-MAIL**Honorable Ron Hedenskog  
Mayor  
City of Brookings  
898 Elk Drive  
Brookings, OR 97415**Re: Agreement Regarding Maintenance Responsibility for the Storm Drainage Pipe at  
815 Chetco Avenue**

Dear Mayor Hedenskog and Members of the City Council:

This office represents McDonald's Corporation. As you know, McDonald's has been working with City staff to establish an equitable partnership for near- and long-term maintenance of a portion of a large storm drainage pipe, which runs beneath McDonald's property at 815 Chetco Avenue (the "Property"). This letter is intended to provide some background on the agreement that the City and McDonald's have worked hard to achieve over the last few weeks, which you have before you as a proposed memorandum of understanding ("MOU").

The proposed MOU concerns a large, 36-inch public storm drainage pipe. The pipe was present at this location before McDonald's purchased the Property. Although the pipe does not serve McDonald's Property, it serves several other public and private properties located upstream.

McDonald's has completed substantial investigatory work to determine the condition of the pipe and identify its maintenance needs. Based on these analyses, McDonald's plans to clean the pipe and re-line the downstream-most 100 feet of the pipe with centrifugally-cast concrete, which will substantially strengthen and enhance the metal portion of the pipe without reducing its capacity. LauraLee Snook, the City Public Works Director, has reviewed this plan and determined that it is acceptable under applicable codes. It is our understanding that the City plans to do a similar re-lining of portions of the upstream pipe.

McDonald's will undertake this work at its own expense even though the drainage pipe does not serve its Property. The proposed repairs are investments in the City's public drainage system that McDonald's is willing to make in this instance, in return for the City's acceptance of a public easement for the drainage pipe where it crosses the Property.

Although the City is generally prohibited from accepting new nonconforming public stormwater infrastructure, the City has the authority to accept an easement in this case because the drainage



The Honorable Ron Hedenskog  
October 21, 2015  
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pipe predates that restriction. The code provision at issue, Brookings Municipal Code Section 13.35.030, only prohibits the construction of nonconforming storm drainage facilities after adoption of that section:

“From and after the date of passage of this codified in this chapter, no person shall construct a nonconforming storm drainage system upon any property, public easement or right-of-way within the corporate limits of the city of Brookings.”

That section was first adopted in 2008. This pipe was constructed long before that and presumably long before current design standards came into effect. Therefore, the pipe is effectively grandfathered, as are most other older components of the City’s public infrastructure. As explained above, the proposed repair meets current City standards for stormwater facility maintenance.

The proposed agreement represents a reasonable outcome for both parties and is a textbook example of a successful public and private partnership. We appreciate the hard work of City staff in this matter and sincerely hope that you will approve the proposed MOU.

Best regards,



Garrett H. Stephenson

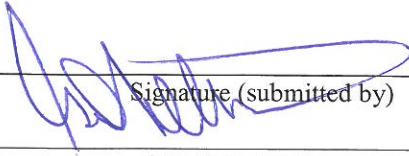
cc: Ms. LauraLee Snook (via email)  
Ms. Martha Rice (via email)  
Ms. Stephanie Hipp (via email)  
Ms. Glenda Hollenbeck (via email)

# CITY OF BROOKINGS

## COUNCIL AGENDA REPORT

Meeting Date: October 26, 2015

Originating Dept: City Manager

  
\_\_\_\_\_  
Signature (submitted by)  
\_\_\_\_\_  
City Manager Approval

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Subject: Status of National Disaster Resiliency Competition Grant Application

Recommended Motion:

None.

Background/Discussion:

The National Disaster Resiliency Competition Grant Application is scheduled for submission on October 27, 2015. This item has been placed on the Council agenda as a “placeholder” for any actions that may be necessary in support of the application and for a report on the status of the Brookings projects being included in the overall application.

# City of Brookings

## City Council Meeting MINUTES

City Hall Council Chambers, 898 Elk Drive, Brookings, OR 97415

**Monday, October 12, 2015**

### **Call to Order**

Mayor Hedenskog called the meeting to order at 7:00 PM.

### **Roll Call**

*Council Present:* Mayor Ron Hedenskog and Councilors Jake Pieper, Kelly McClain, Brent Hodges and Bill Hamilton; a quorum present.

*Staff Present:* City Manager Gary Milliman, Public Works & Development Director LauraLee Snook, City Attorney Martha Rice and City Recorder Joyce Heffington.

*Others Present:* Curry Coastal Pilot Reporter Jane Stebbins and approximately 13 others.

### **Ceremonies/Appointments/Announcements**

Mayor Hedenskog proclaimed the week of October 26 through October 31<sup>st</sup>, 2015 as Red Ribbon Week.

### **Staff Reports**

*Discussion and presentation regarding the proposed annexation to the Curry Health District.*

Curry Health District CEO, Ginny Razo and Mayor Ron Hedenskog presented a slideshow regarding the proposed annexation into the Curry Health District (CHD). Laurie Van Zant, CHD Board member and PAC Chair, said she wants to live here until she dies and these health services are needed.

Councilor Hamilton asked who would appoint the ex-officio positions and Razo said it would be the Curry Medical Board.

Councilor Hodges asked if the state would allow another emergency room in the South County and Razo said they would not, so Sutter Coast, for example, could not have a standalone emergency room here. She said if an organization wanted to open a hospital here it would need to do a Certificate of Need (CON), which is a lengthy and expensive process. And when the CON was completed, she said, they would most likely find that the area could not support a third hospital.

Councilor Hodges asked if the Emergency Department (ED) would go away if the measure didn't pass and Razo said CHD would operate an ED as long as long as it didn't run too far into the red.

Mayor Hedenskog said people needed to put themselves in the position of the North County. If the ED loses money, you close the doors. ED's are supported, he said, with other services.

Councilor Pieper asked if it will open even if the measure doesn't pass and Razo said it would.

Mayor Hedenskog said people need to be realistic about the outcome if they choose not to contribute.

Councilor Pieper asked if the ED would take the place of Urgent Care and Razo said they will still have same day care but the level of care would be expanded. Pieper then asked what assurances there were regarding the expansion of services if the measure passed and Razo said CHD was working on the HUD/NDRC grant with the City and if their project was approved, they would be required to complete the project as described in under two years. Dialysis, she said, was a big question now that Sutter Coast had partnered with the group with which she'd been working, but she was actively looking for other options. She added that she was glad to see that dialysis would be more readily available to people in the South County.

Councilor Pieper said there was no question this was needed and he just hoped that the taxpayers would be able to stomach a relatively small tax compared to the benefits.

Councilor McClain said the City had looked at every alternative and this was the most logical direction to go. As far as the cost of being a decent community, he said, this was a small tax and the addition of the ED would save lives, help raise property values and create jobs. He said people are going to get what they pay for and the NDRC grant could be affected if this doesn't pass as the grantors are looking for community support.

Mayor Hedenskog said if the clinic were fully developed, when the "big one" comes, the ED would have the expertise and accommodations necessary to provide assistance.

*Discussion regarding the private storm drain easement at 815 Chetco Avenue.*

Director Snook gave the staff report.

Councilor Pieper asked if City Attorney Rice had prepared a response and Rice said she had not been asked to form an official response but it seemed a reasonable accommodation.

Councilor Pieper asked about the pipes the City had chosen to line instead of replacing.

City Manager Milliman said it was a common practice and replacing the line would be very expensive and disruptive due its depth and this would be a good compromise. Snook pointed out that the City would likely repair the line upstream using the same method so it would be an unreasonable expectation to have them replace that portion of the system.

Councilor McClain asked how long the lining would last and Snook said around 50 years. McClain then asked if a new pipe would last longer than 50 years and Snook said not by much. McClain asked why the existing pipe no longer met City standards and Snook said metal and concrete use to be allowed, but no longer.

Councilor Hamilton asked if there was any danger of rusting metal falling into the drain and causing a blockage and Snook said part of the lining process was to remove any loose materials before the lining was applied. Hamilton then asked if the last storm drain survey had been done in 2013 and Snook said it had.

Mayor Hedenskog said he wanted the contracting engineer to study the hydraulics and Snook said that had already been done and the smoothness achieved using this process offsets the smaller diameter pipe. Hedenskog then said this appeared to be an

acceptable method but he had a problem with the City taking it over. The City should probably use a land use attorney to look at this, he said.

Councilor Pieper said the real issue was that the pipe would be lined instead of being brought up to City standards. The City, he said, wouldn't replace it, they'd line it.

Councilor Hamilton asked about the possibility of replacing it with a parallel line at a higher elevation and Snook said they had looked into that but the cost was prohibitive.

Mayor Hedenskog said he would like to see what the standards are for this kind of thing and wanted the City Attorney and a land use attorney to work on it. Council Pieper said he didn't think a land use attorney was appropriate and the bottom line was that the City would reline it and forget about it, to which Mayor Hedenskog said that maybe the standard should be changed.

Councilor McClain said he didn't see any more data coming in on this and didn't think a land use attorney was needed.

Councilor Hodges said if the City was using the same exact method he couldn't see how they could not allow it.

Mayor Hedenskog said the question was whether the City had to take it over and Rice said the offer is that if McDonalds' lines the pipe, the City takes it over. Rice said if the City is not willing to take it over it is likely McDonalds will withdraw their proposal and the City could end up repairing it without any assistance.

Staff was directed to work the City Attorney to prepare an MOU and bring it back for consideration.

*Approval of request to waive event fees for Coastal Christmas parade.*

City Manager Milliman provided the staff report.

**Mayor Hedenskog moved, a second followed and Council voted unanimously to give [Coastal Christmas] a gift of \$76.00 [in fee waivers].**

*Authorization to execute letters of commitment to provide funding for the NDRC Water Resiliency and Sewer System Repair Projects.*

City Manager Milliman gave the staff report, adding that an additional motion was needed to Participation Agreement to include the sewer project.

**Councilor Pieper moved, a second followed and Council voted unanimously to authorize the City Manager to execute Intent to Provide Funding letters for the NDRC Water Resiliency and Sewer Repair Projects.**

**Mayor Hedenskog moved, a second followed and Council voted unanimously to amend the [NDRC] Participation Agreement to include the sewer project.**

*Approval of Amendment 1 to Portland State University Annexation Study Contract.*

City Manager Milliman presented the staff report.

**Councilor Hodges moved, a second followed and Council voted unanimously to approve Amendment 1 to Portland State University Annexation Study Contract #37319/251313 in connection with the Harbor Annexation Study.**

### **Consent Calendar**

1. Approve Council minutes for September 28, 2015.
2. Accept Parks and Recreation Commission minutes for July 23, 2015.
3. Accept Public Art Committee minutes for August 3, 2015.
4. Accept September 2015 Vouchers in the amount of \$385,251.51.

**Mayor Hedenskog moved, a second followed and Council voted unanimously to approve the Consent Calendar as written.**

### **Remarks from Mayor and Councilors**

Mayor Hedenskog thanked Council for partnering with CHN.

Councilor Hamilton said adding an ED was the direction we needed to go. He said the tax was not too big, it was the right thing to do, and speaking from personal experience, time was of the essence. He also said that his heart and prayers were with those affected by the Umpqua Community College shooting.

### **Adjournment**

Mayor Hedenskog moved, a second followed and Council voted unanimously to adjourn by voice vote at 8:47pm.



# OREGON LIQUOR CONTROL COMMISSION LIQUOR LICENSE APPLICATION

Application is being made for:

## LICENSE TYPES

- ☒ Full On-Premises Sales (\$402.60/yr)  
☐ Commercial Establishment  
☐ Caterer  
☐ Passenger Carrier  
☐ Other Public Location  
☐ Private Club  
  
☐ Limited On-Premises Sales (\$202.60/yr)  
☐ Off-Premises Sales (\$100/yr)  
☐ with Fuel Pumps  
☐ Brewery Public House (\$252.60)  
☐ Winery (\$250/yr)  
☐ Other: \_\_\_\_\_

## ACTIONS

- ☐ Change Ownership  
☐ New Outlet  
☒ Greater Privilege  
☐ Additional Privilege  
☐ Other \_\_\_\_\_

## 90-DAY AUTHORITY

☐ Check here if you are applying for a change of ownership at a business that has a current liquor license, or if you are applying for an Off-Premises Sales license and are requesting a 90-Day Temporary Authority

## APPLYING AS:

- ☐ Limited Partnership ☐ Corporation ☒ Limited Liability Company ☐ Individuals

## CITY AND COUNTY USE ONLY

Date application received: 9-29-15

The City Council or County Commission:

(name of city or county)

recommends that this license be:

☐ Granted ☐ Denied

By: \_\_\_\_\_

(signature)

(date)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

## OLCC USE ONLY

Application Rec'd by: \_\_\_\_\_

Date: \_\_\_\_\_

90-day authority: ☐ Yes ☐ No

1. Entity or Individuals applying for the license: [See SECTION 1 of the Guide]

① Pacific Sushi LLC

③ \_\_\_\_\_

② \_\_\_\_\_

④ \_\_\_\_\_

2. Trade Name (dba): Pacific Sushi & Grill, Pacific Lounge

3. Business Location: 613 A, & 611 Chetco Ave      Brookings      Curry      OR      97415  
(number, street, rural route)      (city)      (county)      (state)      (ZIP code)

4. Business Mailing Address: PO BOX 2591      Brookings      OR      97415  
(PO box, number, street, rural route)      (city)      (state)      (ZIP code)

5. Business Numbers: 541 251 7707      N/A  
(phone)      (fax)

6. Is the business at this location currently licensed by OLCC? ☒ Yes ☐ No

7. If yes to whom: Pacific Sushi LLC      Type of License: Limited On Site

8. Former Business Name: Pacific Sushi LLC

9. Will you have a manager? ☒ Yes ☐ No      Name: Michael E. Horgan

(manager must fill out an Individual History form)

10. What is the local governing body where your business is located? Brookings  
(name of city or county)

11. Contact person for this application: Michael Horgan, Sarah Adler  
(name)

(phone number(s))

(address)

N/A

(fax number)

(e-mail address)

I understand that if my answers are not true and complete, the OLCC may deny my license application.

Applicant(s) Signature(s) and Date:

① [Signature]      Date 9/29/2015      ③ \_\_\_\_\_      Date \_\_\_\_\_  
② [Signature]      Date 9/29/2015      ④ \_\_\_\_\_      Date \_\_\_\_\_



# CITY OF BROOKINGS POLICE DEPARTMENT

Chris Wallace, Chief of Police



**To:** Brookings City Council through City Manager Gary Milliman  
**From:** Lieutenant Donny Dotson 34631/202  
**Date:** 09/29/15  
**Subject:** Liquor License Application

The Brookings Police Department found no **local** disqualifying information prohibiting **Michael Horgan and Sarah Adler** with their attached **Greater Privilege** liquor license application. The business "**Pacific Sushi & Grill, Pacific Lounge**" is located at 611 & 613A Chetco Avenue, Brookings, Oregon. It is the recommendation of the Brookings Police Department the above mentioned applicants be granted their request with final approval coming from the **Oregon Liquor Control Commission**.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Donny Dotson".

Lieutenant Donny Dotson  
Brookings Police Department

