

DS #: 4523

APN: 137-25-411-001

PROJECT: DESERT SPRINGS UNITED METHODIST CHURCH — UPDATE #2

SUBMITTAL: 2<sup>ND</sup>

SCANNED BY/DATE: \_\_\_\_\_

CHECKED BY/DATE: \_\_\_\_\_



# WRIGHT ENGINEERS

---

ADDENDUM #1 TO THE  
UPDATE #2 TO THE  
TECHNICAL DRAINAGE STUDY  
FOR  
DESERT SPRINGS UNITED  
METHODIST CHURCH

DS 4523

4/13/11

K-25

\$400 —

CITY OF LAS VEGAS  
March 22, 2011



## PREPARED FOR:

JOSEPH N. BRANCA ARCHITECT  
2821 CHANNEL BAY DRIVE  
LAS VEGAS, NV 89127



March 22, 2011

Albert Sung  
City of Las Vegas Public Works  
731 S. 4<sup>th</sup> Street  
Las Vegas, NV 89101

CIVIL

STRUCTURAL

MECHANICAL

ELECTRICAL

PLUMBING

SURVEYING

PLANNING

LEED

**RE: ADDENDUM #1 TO UPDATE #2 TO THE TECHNICAL DRAINAGE STUDY FOR DESERT SPRING UNITED METHODIST CHURCH. AKA DSUMC SANCTUARY EXPANSION**  
Job No. CN100298  
CLV DS4523

Dear Mr. Sung:

We have received the comment letter for the DSUMC Sanctuary Expansion, dated March 14, 2011. The format for each response is as follows: the numbered comment from the City of Las Vegas is presented first in bold followed by Wright Engineers' response. A copy of the review comments is attached. All supporting calculations and analysis for each response are included in the *Appendix*.

- 1. The new building location is well below *Pavilion Center Drive* street elevation. A flood wall such as a solid grouted 8"-CMU must be provided at the property line to serve a major storm flood protection purpose. The wall must be solid grouted to a height of minimum 18" above the 100-year water surface in the corresponding street section. Revise grading plan and Section B/DT1 accordingly.**

RESPONSE: The 100-year peak flow in Pavilion Center Drive is only 11cfs with a depth of 0.38-feet; this is well contained by the existing curb with a height of 0.50-feet. The back of the existing sidewalk protects the site from flow in Pavilion Center Drive. In addition, the DSUMC Classroom Expansion (DS3988) was also below the Pavilion Center Drive street elevation and a flood wall was not required in that case.

- 2. Sheet GP2: A proposed FL/HP of 45.64 at the northwest corner of the new building is higher than the finish floor of the building which is not acceptable. Lower the FL/HP to a minimum of 6" below the new building.**

RESPONSE: The elevation of the proposed FL/HP is controlled by the 3:1 slope from the northern drive to the building. The FL/HP of 45.64 remains the same. The building is flood protected until the flowline is a minimum of 6" below the new building elevation.

7425 Peak Drive  
Las Vegas, NV 89128  
(p) 702.933.7000  
(f) 702.933.7001  
800.933.7611  
wrightengineers.com

3. **Figure 5 (Existing Condition Basin Map): Provide a summary table for street flows and hydrologic basin data such as Q10/Q100, V10/V100 and d10/d100 etc.**

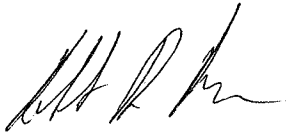
RESPONSE: Figure 5 has been revised as requested, and the summary tables have been provided. It should be noted the title of Figure 5 was incorrect and has been revised to *Developed Condition Basin Map*.

4. **Provide a note on the grading plan: "All onsite storm drain and the associated facilities are privately owned and to be privately maintained."**

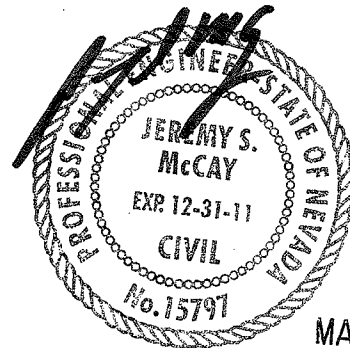
RESPONSE: The requested note is indicated on the bottom right corner of the grading plan.

If you have any further questions or comments regarding this study, please do not hesitate to contact this office at (702) 933-7000.

Sincerely,  
Wright Engineers,



Robert D. Hansen, E.I.  
Hydrologic/Hydraulic Services



Jeremy S. McCay, P.E.  
Principal

MAR 22 2011

# HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL

## DRAINAGE STUDY INFORMATION FORM

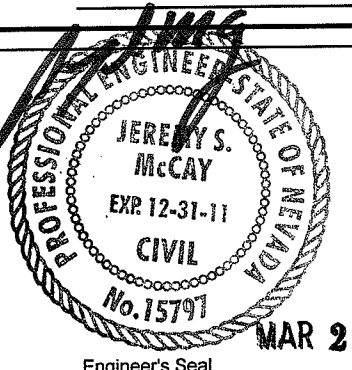
Name of Development: DSUMC Sanctuary Expansion Date: March 21, 2011  
 Location of Development: a) Descriptive (Cross Streets) North/South: N Pavilion Center Dr  
 East/West: Greenmore Ln  
 b) Section: 25 Township: 20 S Range: 59 E  
 c) APN: 137-25-411-001

Name of Owner: Church Methodist Desert Spring (Joseph N. Branca Architect)  
 Telephone No.: (702) 308-1603 Facsimile No.: (702) 256-3002 Email Address: joeb@cox.net  
 Address: 2821 Channel Bay Dirve Las Vegas NV 89127  
 Contact Person Name: Rob Hansen Telephone No: (702) 933-7000  
 E-mail Address: rhansen@wrightengineers.com  
 Firm: Wright Engineers  
 Address: 7425 Peak Drive, Las Vegas, NV 89128

Type of Land Development/Land Disturbance Process:

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Rezoning         | <input type="checkbox"/> Subdivision Map            | <input type="checkbox"/> Clearing and Grading Only    |
| <input type="checkbox"/> Parcel Map       | <input type="checkbox"/> Planned Unit Development   | <input type="checkbox"/> Other (Please specify below) |
| <input type="checkbox"/> Large Parcel Map | <input checked="" type="checkbox"/> Building Permit |   |

1. Total Owned Land Area: At Site: 4.08 +/- ac Being Developed/Disturbed: 2.00 +/- ac
2. Is a portion or all of the subject property located in a designated FEMA Flood Hazard Area? YES\*  NO
3. Is the property bordered or crossed by an existing or proposed Clark County Regional Flood Control District Master Planned Facility? YES\*  NO
4. Proposed type of development (Residential, Commercial, Etc.)? Commercial (Church Expansion)
5. Approximate upstream land area which drains to the subject site? 30 +/- ac
6. Has the site drainage been evaluated in the past?  YES  NO If yes, please identify documentation:  
1. TDS for DSUMC (DS2524) - Original study for the project site.  
2. Update #1 to TDS for DSUMC a.k.a Classroom Expansion @ DSUMC (DS3988) - Added a classroom building to the site.
7. If known, please briefly identify the proposed discharge point(s) of runoff from the site:  
Runoff from the site travels southeast to Greenmoor Lane.
8. Briefly describe your proposed schedule for the subject project: As soon as possible



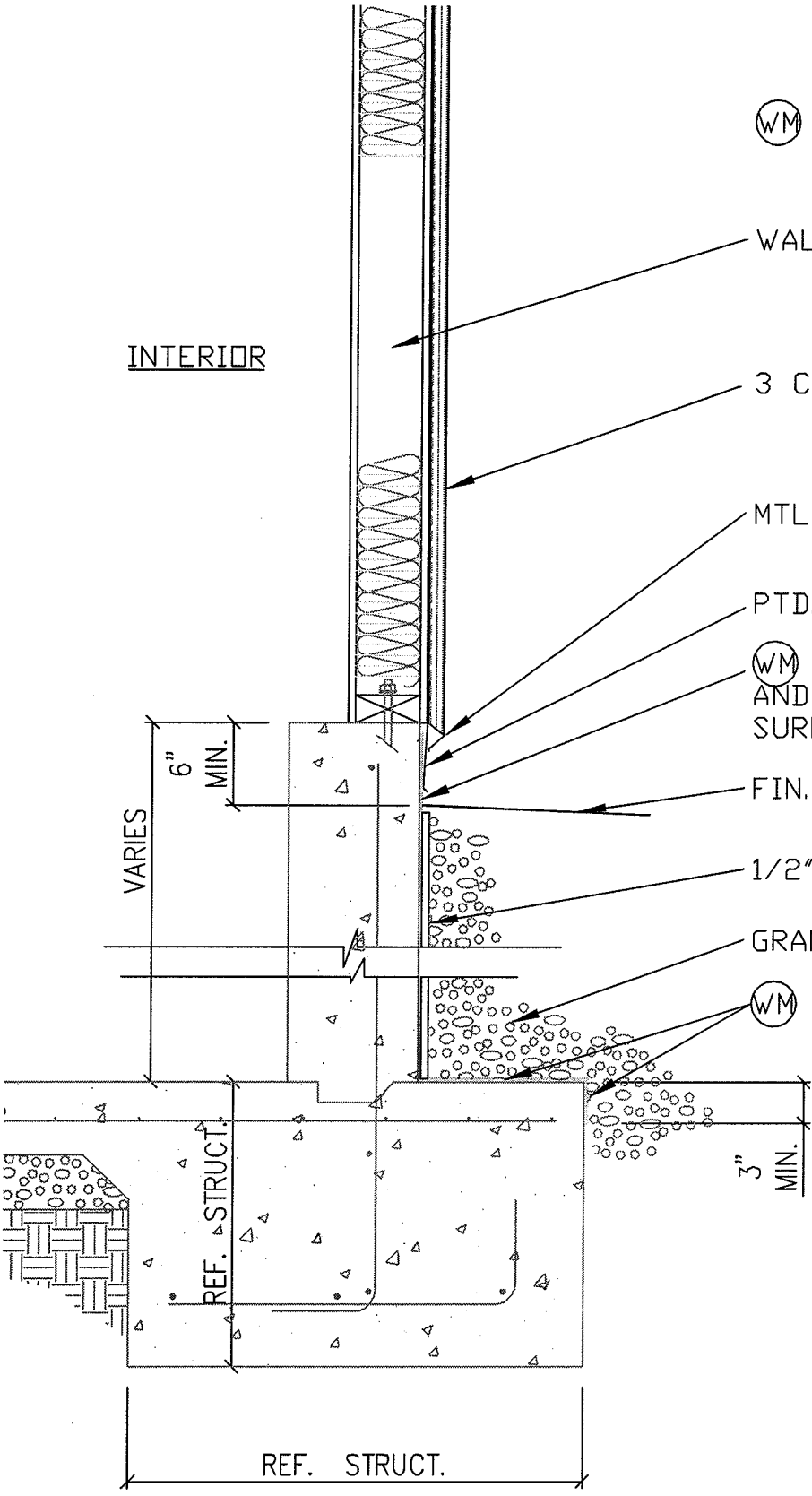
Submit this form as part of the required drainage study to the local entity which has jurisdiction over the subject property. This form may provide sufficient information to serve as the Conceptual Drainage Study.

\* Review and concurrence of the Clark County Regional Flood Control District is required.

Revision	Date

Reference: **Wright Engineers, Inc. Job Number: CN100298**

**STANDARD FORM 1**



⊙ WM = WATERPROOF MEMBRANCE

WALL FRAMING - SEE STRUCTURALS

3 COAT STUCCO SYSTEM

MTL EDGING WITH WEEP

PTD. METAL FLASHING

⊙ WM - TO START UNDER FLASHING AND COVER ENTIRE SUBGRADE SURFACE OF THE CONCRETE WALL

FIN. GRADE: SLOPE AWAY FROM BLDG

1/2" MIN. PROTECTION BOARD

GRANULAR FILL AGAINST WM

⊙ WM - TO CONTINUE OVER FOOTING

INTERIOR

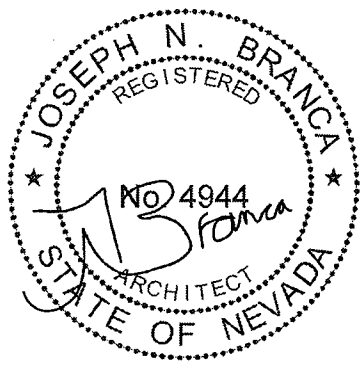
VARIES  
6" MIN.

3" MIN.

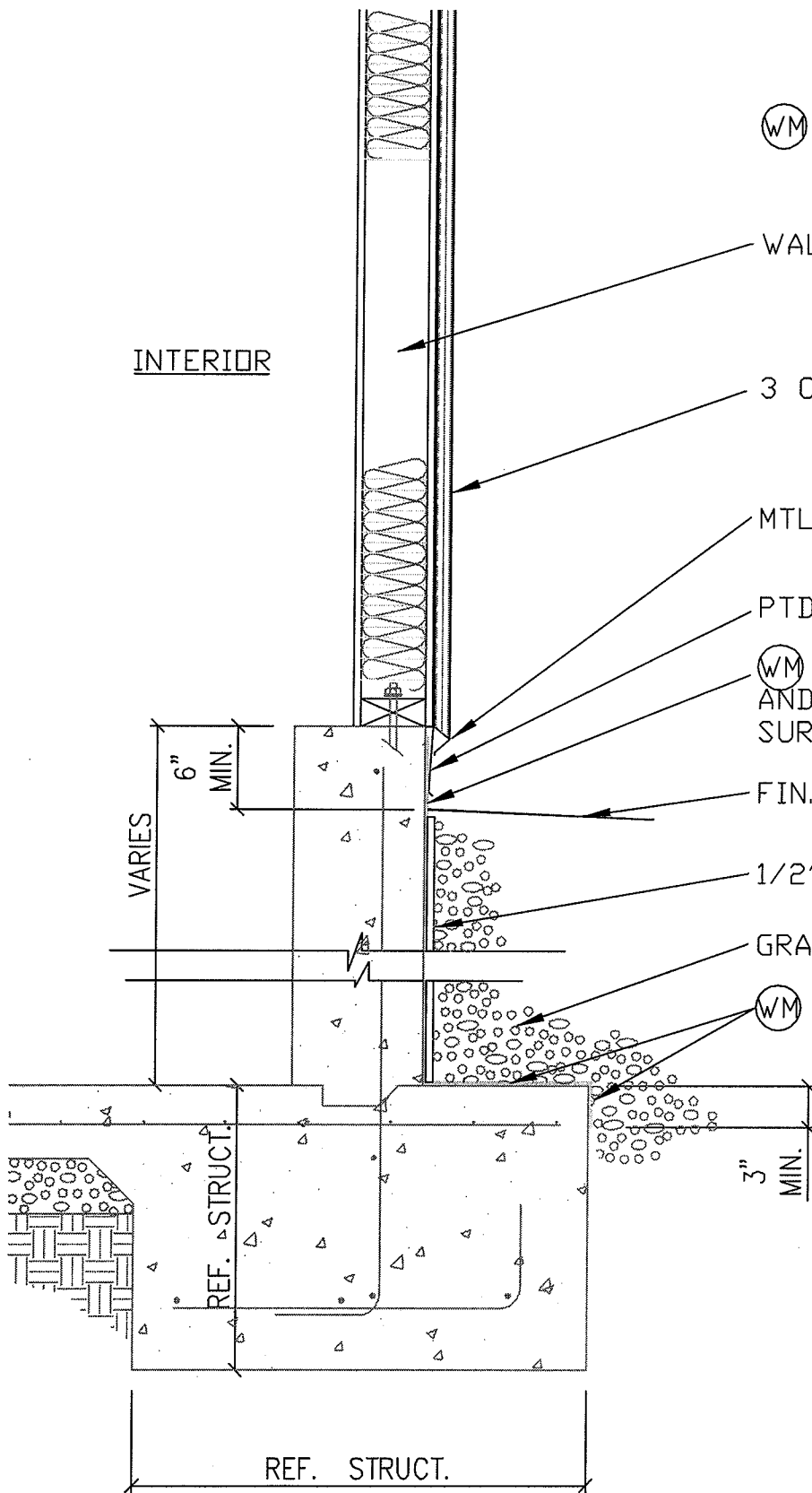
REF. STRUCT.

REF. STRUCT.

SCALE: 3/16" = 1'-0"



<p><b>JOSEPH N. BRANCA</b> ARCHITECT AIA ♦ NCARB ♦ LEED-AP  (702) 308-1603 fax: (702) 256-3002 email: joeb@cox.net</p>	<p><b>DESERT SPRING UNITED METHODIST CHURCH</b> <b>SANCTUARY EXPANSION</b>  <b>TYPICAL WATERPROOFING DETAIL</b></p>	<p>MARCH 28, 2011  SKETCH 032811_01</p>
--	---	---



⊙WM = WATERPROOF MEMBRANCE

WALL FRAMING - SEE STRUCTURALS

INTERIOR

3 COAT STUCCO SYSTEM

MTL EDGING WITH WEEP

PTD. METAL FLASHING

⊙WM - TO START UNDER FLASHING AND COVER ENTIRE SUBGRADE SURFACE OF THE CONCRETE WALL

FIN. GRADE: SLOPE AWAY FROM BLDG

1/2" MIN. PROTECTION BOARD

GRANULAR FILL AGAINST WM

⊙WM - TO CONTINUE OVER FOOTING

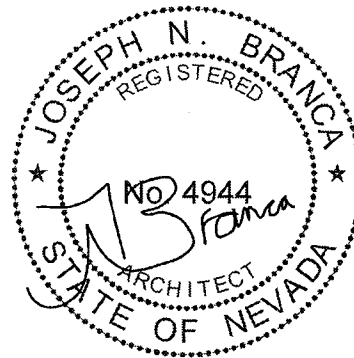
VARIES  
6" MIN.

3" MIN.

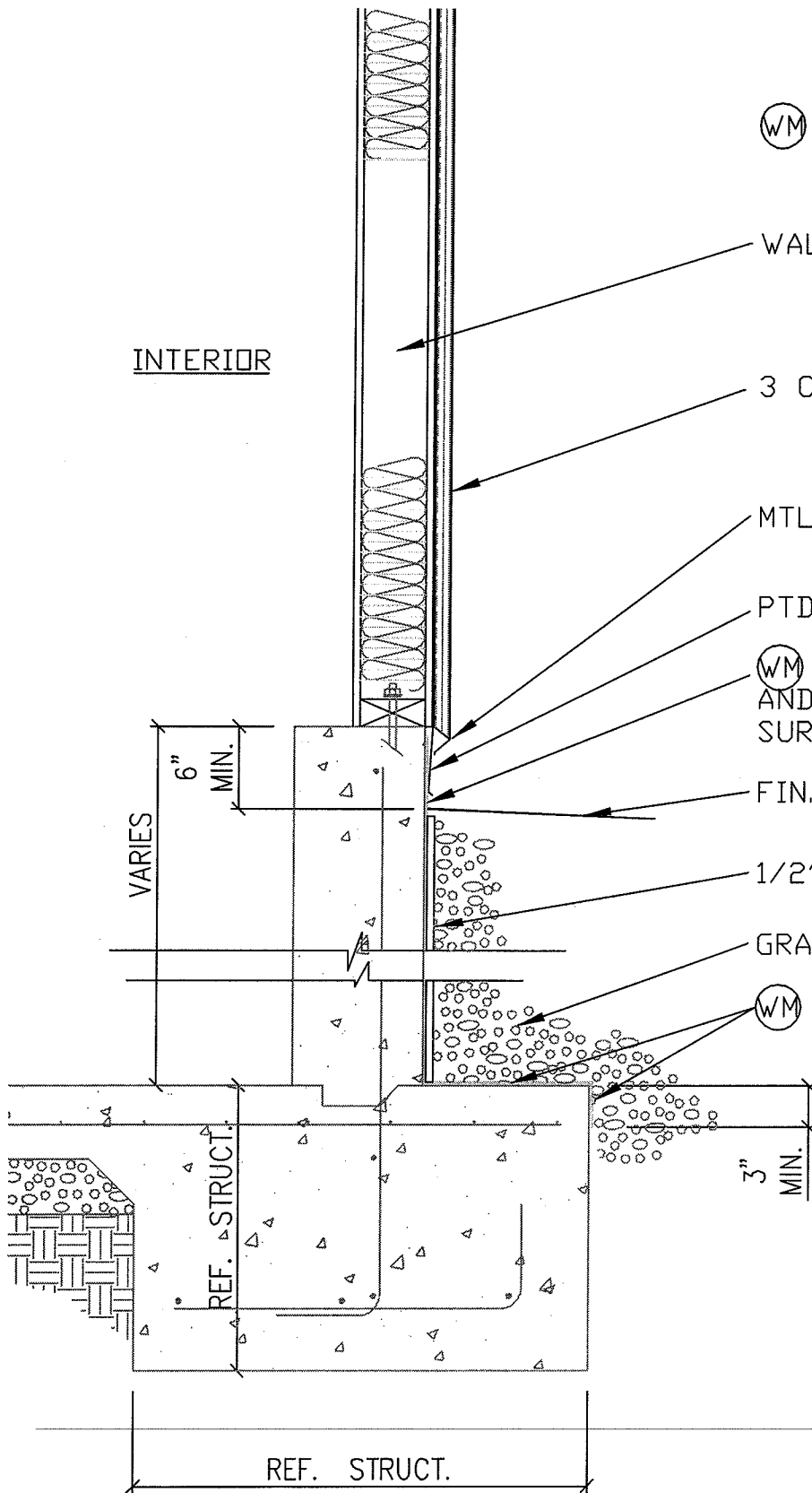
REF. STRUCT.

REF. STRUCT.

SCALE: 3/16" = 1'-0"



<p><b>JOSEPH N. BRANCA</b> ARCHITECT AIA ◇ NCARB ◇ LEED-AP  (702) 308-1603 fax: (702) 256-3002 email: joeb@cox.net</p>	<p><b>DESERT SPRING UNITED METHODIST CHURCH</b> <b>SANCTUARY EXPANSION</b>  <b>TYPICAL WATERPROOFING DETAIL</b></p>	<p>MARCH 28, 2011  SKETCH 032811_01</p>
--	---	---



⊙ WM = WATERPROOF MEMBRANCE

WALL FRAMING - SEE STRUCTURALS

INTERIOR

3 COAT STUCCO SYSTEM

MTL EDGING WITH WEEP

PTD. METAL FLASHING

⊙ WM - TO START UNDER FLASHING AND COVER ENTIRE SUBGRADE SURFACE OF THE CONCRETE WALL

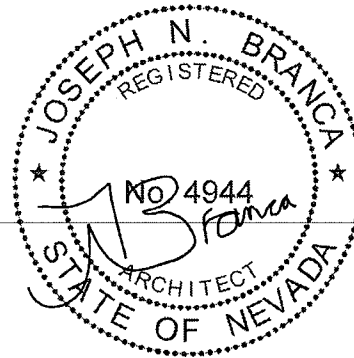
FIN. GRADE: SLOPE AWAY FROM BLDG

1/2" MIN. PROTECTION BOARD

GRANULAR FILL AGAINST WM

⊙ WM - TO CONTINUE OVER FOOTING

SCALE: 3/16" = 1'-0"



<p><b>JOSEPH N. BRANCA</b> ARCHITECT AIA ♦ NCARB ♦ LEED-AP  (702) 308-1603 fax: (702) 256-3002 email: joeb@cox.net</p>	<p><b>DESERT SPRING UNITED METHODIST CHURCH</b> <b>SANCTUARY EXPANSION</b>  <b>TYPICAL WATERPROOFING DETAIL</b></p>	<p>MARCH 28, 2011  SKETCH 032811_01</p>
--	---	---

<b>CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM</b>		<b>DATE:</b> March 14, 2011
<b>TO:</b> Land Development Services Department of Public Works		<b>FROM:</b> Albert Sung, P.E. Flood Control Project Engineer Department of Public Works
<b>SUBJECT:</b> Drainage Study for: Desert Springs United Methodist Church -- Update #2		<b>COPIES TO:</b> Wright One Source
<b>Cross Streets:</b>	NEC of Pavilion Center Dr. & Greenmoor Ln.	Church Methodist Desert Springs
<b>File Number:</b>	F:\Depot\DSMemos\DS4523A.doc	Bart Anderson, P.E., DevCo
<b>Parcel Number:</b>	137-25-411-001	
<b>Zoning Action:</b>	CRG-40699	
<b>FEMA Flood Zone</b>	YES	NO X
<b>Proposed Storm Drain</b>	YES	NO X

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Transaction #
1 <sup>st</sup> Submittal	3/1/2011	3/14/2011	See Comments Below	\$400.00	163651: \$400
<b>TOTAL FEES (LDDRS):</b>				<b>\$400.00</b>	

**REMARKS:**

The Drainage Study for the subject project has been reviewed and:

	is approved subject to conformance to all City standards and the following conditions:
X	must be resubmitted or supplemented including the following:
	is conditionally approved subject to Clark County Regional Flood Control District concurrence.

- The new building location is well below the *Pavilion Center Drive street* elevation. A flood wall such as a solid grouted 8" CMU must be provided at the property line to serve a major storm flood protection purpose. The wall must be solid grouted to a height of minimum 18" above the 100-year water surface in the corresponding street section. Revise the grading plan and Section B/DT1 accordingly.
- Sheet GP2:** A proposed FL/HP of 45.64 at the northwest corner of the new building is higher than the finish floor of the building which is not acceptable. Lower the FL/HP to a minimum of 6" below the new building.
- Figure 5 (Existing Condition Basin Map):** Provide a summary table for street flows and hydrologic basins data such as  $Q_{10}/Q_{100}$ ,  $V_{10}/V_{100}$  and  $d_{10}/d_{100}$  etc.
- Provide a note on the grading plan: "All onsite storm drain and the associated facilities are privately owned and to be privately maintained".

**NOTE:** Please be advised that all land surface area disturbances over 1 acre or any area adjacent to a water way must submit to the Nevada Division of Environmental Protection a "Notice of Intent" to discharge that certifies a stormwater pollution prevention plan has been developed and is maintained on site; for inclusion in the Stormwater General Permit No. NVR100000. A phased construction unit in a contiguous subdivision is considered under construction until all stripped or disturbed surface areas have been stabilized, including forms and applications see

**END**  
ays

Post-It* Fax Note	7671	Date	3/14/11	# of pages	4
To	Rob Hansen / Jeremy	From	Albert Sung		
Co./Dept.	Wright Eng	Co.	CLU		
Phone #		Phone #	229-2001		
Fax #	933-7001	Fax #			

T/R/S: T20S/R59E/25  
 AREA K-25



# TRANSMITTAL

DATE: Apr 12, 2011

CIVIL  
STRUCTURAL  
MECHANICAL  
ELECTRICAL  
PLUMBING  
ENERGY MODELING  
COMMISSIONING  
LEED ADMINISTRATION

TO: City of Las Vegas – Flood Control  
333 N. Rancho Drive  
Las Vegas, NV 89106

ATTN: ALBERT SUNG

PROJECT: Desert Spring United Methodist Church  
PROJECT No: CN100298-003  
PROJECT MGR: Jeremy S. McCay

VIA: Hand Deliver  
FOR: Approval  
COPIES TO:

FROM: Amber Dolce

ITEM	QTY	DESCRIPTION
OTHER	1	Wet Stamped Addendum #1
CHECK	1	#12022 in the amount of \$400.00

REMARKS: Please accept the attached Addendum #1 in response to comments to Update #2 for project DS4523. Let us know if you have any questions. Thanks!

**\*\* Duplicate Receipt \*\***

City of Las Vegas  
Development Services Center  
731 South Fourth Street  
Las Vegas, NV 89101

04/13/2011 08:43 Trn 166521  
Cashier 970040

PRJ Permit # DS4523 \$400.00

Subtotal \$400.00  
Tax \$0.00  
**Total \$400.00**

Received CHECK \$400.00  
Check # 12022  
Change \$0.00

For questions related to this receipt call  
702-229-6251

Las Vegas  
7425 Peak Drive  
Las Vegas, NV 89128  
(p) 702.933.7000  
(f) 702.933.7001  
800.933.7611

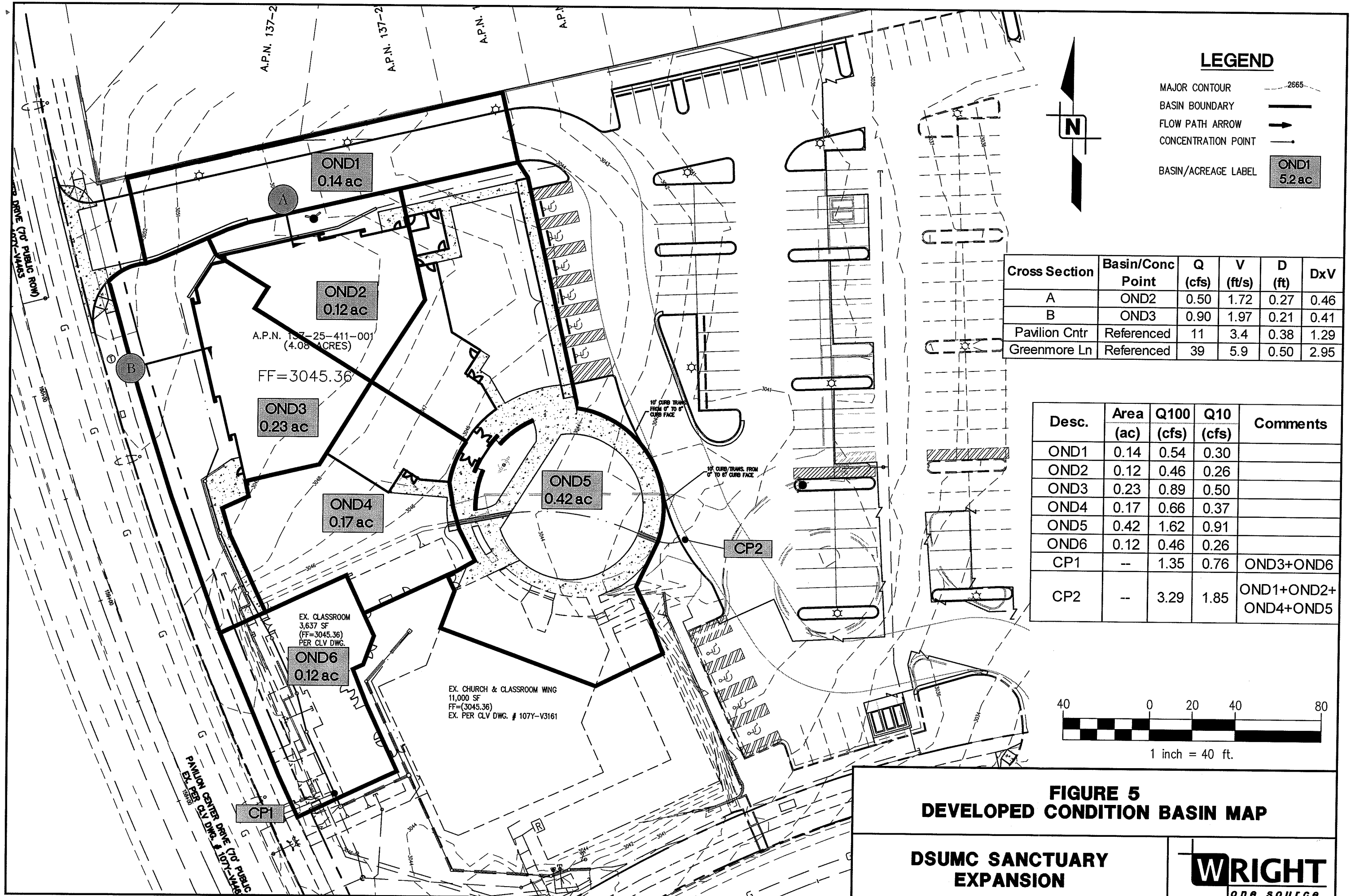
Irvine  
2 Venture, Suite 200  
Irvine, CA 92618  
(p) 949.477.4001  
(f) 949.477.4009

Phoenix  
3115 S. Price Road  
Chandler, AZ 85248  
(p) 480.483.6111  
(f) 480.483.6112

Salt Lake  
9176 South 300 West  
Suite 12  
Sandy, UT 84070  
(p) 801.352.2001  
(f) 801.352.2006  
wrightengineers.com  
(p) 800.933.7611

COMPLETED BY: Amber Dolce  
CALLED BY: \_\_\_\_\_  
TIME: \_\_\_\_\_  
DATE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_  
PRINT NAME: \_\_\_\_\_  
DATE: \_\_\_\_\_

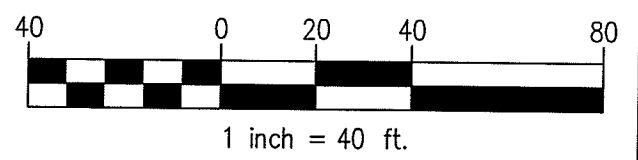


**LEGEND**

- MAJOR CONTOUR 2665
- BASIN BOUNDARY ——
- FLOW PATH ARROW →
- CONCENTRATION POINT ●
- BASIN/ACREAGE LABEL OND1  
5.2 ac

Cross Section	Basin/Conc Point	Q (cfs)	V (ft/s)	D (ft)	DxV
A	OND2	0.50	1.72	0.27	0.46
B	OND3	0.90	1.97	0.21	0.41
Pavilion Cntr	Referenced	11	3.4	0.38	1.29
Greenmore Ln	Referenced	39	5.9	0.50	2.95

Desc.	Area (ac)	Q100 (cfs)	Q10 (cfs)	Comments
OND1	0.14	0.54	0.30	
OND2	0.12	0.46	0.26	
OND3	0.23	0.89	0.50	
OND4	0.17	0.66	0.37	
OND5	0.42	1.62	0.91	
OND6	0.12	0.46	0.26	
CP1	--	1.35	0.76	OND3+OND6
CP2	--	3.29	1.85	OND1+OND2+OND4+OND5



**FIGURE 5  
DEVELOPED CONDITION BASIN MAP**

**DSUMC SANCTUARY  
EXPANSION**

