CITY OF ALBUQUERQUE

January 21, 2016

Jake Bordenave, P.E.
Bordenave Designs
PO Box 91194
Albuquerque, New Mexico 87109

RE: **Gorman Warehouse Addition**
1330 12th Street NW
Request Permanent C.O. – Accepted
Engineers Stamp Date 2/11/15 (J13D100)
Certification Dated (1-15-16)

Dear Mr. Bordenave,

Based upon the information provided in your certification received 1/20/2016, the site is acceptable for permanent release of Certificate of Occupancy by hydrology.

If you have any questions you can contact me at 924-3695 or Totten Elliott at 924-3982.

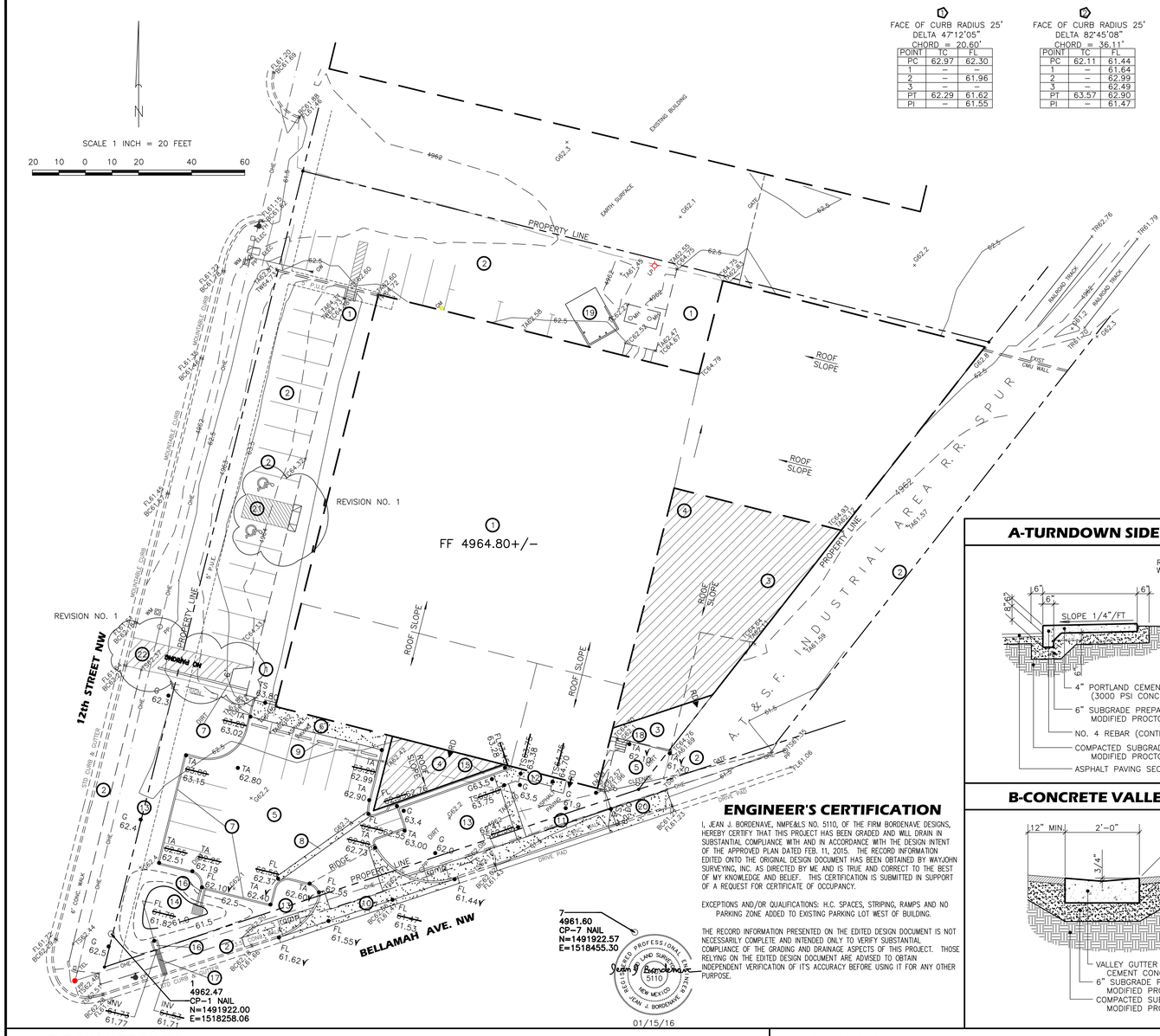
Sincerely,

Abiel Carrillo, P.E.
Principal Engineer, Planning Department
Development and Review Services

TE/AC
C: File

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

GRADING PLAN



① FACE OF CURB RADIUS 25'
DELTA 47°12'05"
CHORD = 20.60'

POINT	TC	FL
PC	62.97	62.30
1	–	–
2	–	61.96
3	–	–
PT	62.29	61.62
PI	–	61.55

② FACE OF CURB RADIUS 25'
DELTA 82°45'08"
CHORD = 36.11'

POINT	TC	FL
PC	62.11	61.44
1	–	61.64
2	–	62.99
3	–	62.49
PT	63.57	62.90
PI	–	61.47

ENGINEER'S CERTIFICATION

I, JEAN J. BORDENAVE, NMPE&LS NO. 5110, OF THE FIRM BORDENAVE DESIGNS, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED FEB. 11, 2015. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY WAYJOHN SURVEYING, INC. AS DIRECTED BY ME AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR CERTIFICATE OF OCCUPANCY.

EXCEPTIONS AND/OR QUALIFICATIONS: H.C. SPACES, STRIPING, RAMPS AND NO PARKING ZONE ADDED TO EXISTING PARKING LOT WEST OF BUILDING.

THE RECORD INFORMATION PRESENTED ON THE EDITED DESIGN DOCUMENT IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THE EDITED DESIGN DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF IT'S ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

A-TURNDOWN SIDEWALK

B-CONCRETE VALLEY GUTTER

KEYED NOTES

1. EXISTING BUILDING, SIDEWALK AND DOCK TO REMAIN.
2. EXISTING ASPHALT SURFACE OR SIDEWALK TO REMAIN.
3. REMOVE EXISTING CONCRETE DOCK AND CONSTRUCT NEW DOCK.
4. NEW BUILDING (HATCHED AREA). MATCH EXISTING BUILDING FLOOR ELEV.
5. NEW ASPHALT PARKING AREA. SEE PAVING DETAIL 'E' THIS SHEET. SEE TRAFFIC CIRCULATION LAYOUT FOR DIMENSIONS.
6. NEW CONCRETE TURNDOWN SIDEWALK. SEE DETAIL 'A' THIS SHEET. SEE TRAFFIC CIRCULATION LAYOUT FOR DIMENSIONS.
7. NEW CONCRETE HEADER CURB. SEE DETAIL 'C' THIS THIS SHEET. SEE TRAFFIC CIRCULATION LAYOUT FOR DIMENSIONS.
8. NEW VALLEY GUTTER. SEE DETAIL 'B' THIS SHEET.
9. NEW CONCRETE PARKING BUMPERS.
10. NEW PRIVATE ENTRANCE DETAIL w/ 25' OPENING. SEE COA STD. DET. 2426.
11. REMOVE EXISTING DRIVE PAD AND ONSITE ASPHALT PAVING. BUILD NEW STANDARD CURB & GUTTER PER COA STD. DET. 2415A AND 6' SIDEWALK PER COA STD. DET.
12. NEW CONCRETE RAMP AND LANDINGS. SEE TRAFFIC CIRCULATION LAYOUT FOR DIMENSIONS.
13. NEW LANDSCAPING. SEE LANDSCAPING PLAN. **NOTE: FINISHED GRADE OF LANDSCAPED AREAS (WITHIN 5' OF THE ABUTTING CURB OR WALK) SHALL BE DEPRESSED AT LEAST 1" BELOW THE ADJACENT CURB OR WALK**
14. NEW INITIAL RUNOFF RETENTION POND.
15. NEW 12" CONCRETE CHANNEL. SEE DETAIL 'D' THIS SHEET.
16. NEW 18" CONCRETE CHANNEL. SEE DETAIL 'D' THIS SHEET.
17. NEW 18" SIDEWALK CULVERT PER COA STD. DET. 2236. INLET INV. 61.73, OUTLET INV. 61.53.
18. NEW CONCRETE STAIRS. SEE ARCHITECTURAL PLANS FOR DETAILS.
19. NEW REFUSE ENCLOSURE. SEE TRAFFIC CIRCULATION LAYOUT FOR ADDITIONAL INFORMATION.
20. REMOVE EXISTING SIDEWALK AND C&G. EXTEND EXISTING DRIVEPAD 22.2' WEST. MATCH SLOPE AND WIDTH OF EXISTING DRIVEPAD.
21. REVISE STRIPING, INSTALL WALL MOUNTED H.C. SIGNS AND CONSTRUCT H.C. RAMP.
22. REVISE STRIPING, PAINT 'NO PARKING' AND ADD H.C. RAMP.

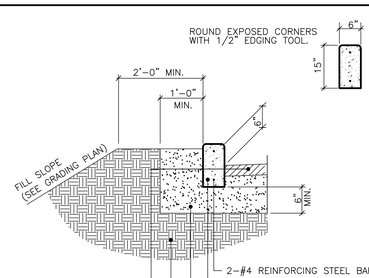
GRADING NOTES

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT THE NEW MEXICO ONE CALL SYSTEM AT 260-1990 FOR LOCATION OF EXISTING UTILITIES.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
4. ALL CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.

EROSION CONTROL NOTES

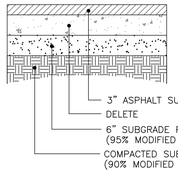
1. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO PUBLIC RIGHT-OF-WAY OR PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY THE CONSTRUCTION OF TEMPORARY SOIL BERMS OR SILT FENCES AT PROPERTY LINES AND WETTING SOIL TO PREVENT IT FROM BLOWING. IF THE SITE IS CONTROLLED BY A SWPPP PLAN, EROSION CONTROL SHALL BE ACCOMPLISHED ACCORDING TO THE PLAN.
2. THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.
3. THE CONTRACTOR SHALL SECURE THE APPROPRIATE BARRICADING, TOP SOIL DISTURBANCE AND EXCAVATION PERMITS FROM THE CITY PRIOR TO BEGINNING CONSTRUCTION.

C-HEADER CURB



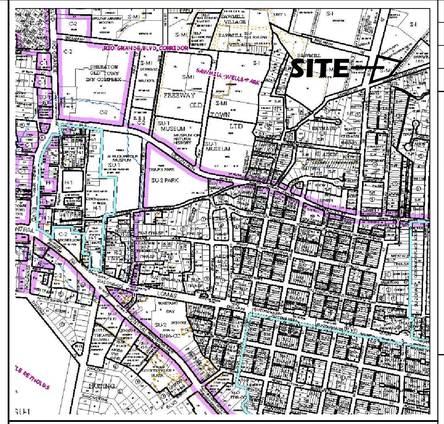
NOTE:
PROVIDE CONTRACTION JOINTS AT 5 FEET ON CENTER AND EXPANSION JOINTST AT 50 FEET ON CENTER UNLESS OTHERWISE STATED ON SITE PLANS OR IF CURB ABUTS SIDEWALK; WHERE CURB JOINTS SHALL MATCH SIDEWALK JOINTS.

E-ASPHALT PAVEMENT (LIGHT DUTY)

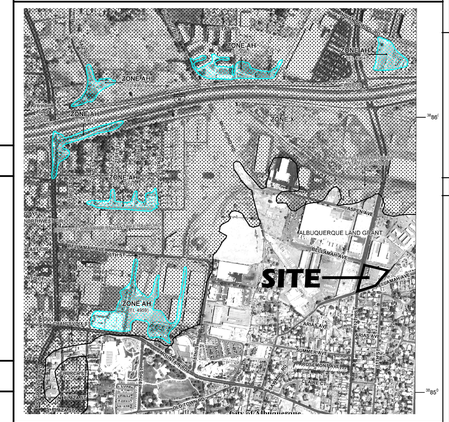


NOTES:
1. ASPHALT MIX DESIGN TO USE CITY OF ALBUQUERQUE AGGREGATE CLASS 'C' AND HAVE A MARSHALL STABILITY GREATER THAN 1800 LBS.
2. ASPHALT CONCRETE COURSES GREATER THAN 3" IN THICKNESS SHALL BE PLACED WITH MULTIPLE LIFTS. MINIMUM LIFT THICKNESS 1 1/2".

VICINITY MAP J-13



FEMA FIRM PANEL NO. 331H



LEGAL DESCRIPTION

LOT 2, LANDS OF CLARE W. DREYER & GORMAN ENGINEERING COMPANY

PERMANENT BENCHMARK

ACS 17-J14 ELEVATION 4957.484 (NAVD 1988)

LEGEND

TBM	TEMPORARY BENCHMARK	GM	GAS MATER
G	GROUND	GV	GAS VALVE
FF	FINISH FLOOR	LP	LIGHT POLE
FG	FINISH GRADE	PP	POWER POLE
FL	FLOWLINE	GW	GUY WIRE
TA	TOP OF ASPHALT	PED	ELEC. OR TEL. PEDESTAL
TC	TOP OF CONCRETE	RD ▶	SCUPPER OR CANALE
BC	TOP OF CURB		EXISTING TOPO OBJECT
TP	TOP OF EARTH PAD		PROPOSED TOPO OBJECT
TS	TOP OF SIDEWALK		
TW	TOP OF WALL		EXISTING 1' CONTOUR
FH	FIRE HYDRANT		EXISTING 0.5' CONTOUR
WM	WATER METER	XX.XX	EXISTING SPOT ELEVATION
WV	WATER VALVE	● XX.XX	PROPOSED SPOT ELEVATION
MH	MANHOLE	XX.XX / XX.XX	RECORD SPOT ELEVATION
CB	CATCH BASIN GRATE		INDICATES RECORD WITHIN CONSTRUCTION TOLERANCE

DRAINAGE NOTES

1. THE SITE IS PRESENTLY DEVELOPED AS A COMMERCIAL ESTABLISHMENT. THE EXISTING BUILDING IS TO REMAIN AND THE REAR DOCK WILL BE RAZED. THE BUILDING WILL BE EXPANDED AND A NEW DOCK WILL BE CONSTRUCTED IN THE AREA OF THE RAZED DOCK. IN ADDITION THE BUILDING WILL BE EXPANDED, ADDITIONAL PARKING WILL BE PROVIDED AND AN ACCESSIBLE FIRE EXIT WILL BE CONSTRUCTED IN THE PRESENTLY VACANT PORTION OF THE LOT ON THE SOUTH SIDE OF THE EXISTING BUILDING.

A POND WILL BE CONSTRUCTED TO RETAIN FIRST FLUSH RUNOFF FROM THE IMPERVIOUS PORTION OF THE NEW DEVELOPMENT. A PORTION OF THE EXISTING BUILDING ROOF RUNOFF WILL BE ROUTED THROUGH THE POND AS WELL. FLOWS IN EXCESS OF THE RETENTION REQUIREMENT WILL BE ROUTED TO BELLAMAH AVE. VIA A SIDEWALK CULVERT.

2. THE SITE IS LOCATED IN RAINFALL ZONE 2. THERE WILL BE AN INCREASE (ABOVE EXISTING CONDITIONS) IN RUNOFF VOLUMES AND FLOW RATES DUE TO ADDITIONAL DEVELOPMENT. THE INCREASE IN THE 6 HOUR RUNOFF VOLUMES FOR THE 10 YEAR AND 100 YEAR STORMS ARE 240 AND 270 CUBIC FEET AND FLOW RATES OF 0.08 AND 0.09 CFS RESPECTIVELY. SEE TABLE AT BELOW LEFT FOR CALCULATIONS.

3. THE SITE IS LOCATED IN AN AREA DESIGNATED 'ZONE X' PER FEMA FIRM MAP NO. 331H, DATED AUGUST, 2012.

4. EXISTING TOPOGRAPHY FOR THE SITE WAS OBTAINED BY WAYJOHN SURVEYING, INC. IN SEPTEMBER, 2014.

DRAINAGE DATA

CONDITION	BASIN	STORM RETURN PERIOD	TREATMENT TYPE	TREATMENT AREA	EXCESS PRECIPITATION	PEAK RUNOFF	RUNOFF VOLUME	RUNOFF RATE
			(table 4)		(table 8)	(table 9)		
-	-	year	-	sq. ft.	in.	cfs/acre	cu. ft.	cfs
EXISTING	SITE	10	A	0	0.13	0.38	0	0.00
			B	0	0.28	0.95	0	0.00
			C	8925	0.52	1.71	387	0.35
			D	44756	1.34	3.14	4998	3.23
			TOTAL	53681			5385	3.58
		100	A	0	0.53	1.56	0	0.00
			B	0	0.78	2.28	0	0.00
			C	8925	1.13	3.14	840	0.64
			D	44756	2.12	4.7	7907	4.83
			TOTAL	53681			8747	5.47
DEVELOPED	SITE	10	A	0	0.13	0.38	0	0.00
			B	4111	0.28	0.95	96	0.09
			C	87	0.52	1.71	4	0.00
			D	49479	1.34	3.14	5525	3.57
			TOTAL	53677			5625	3.66
		100	A	0	0.53	1.56	0	0.00
			B	4111	0.78	2.28	267	0.22
			C	87	1.13	3.14	8	0.01
			D	49479	2.12	4.7	8741	5.34
			TOTAL	53677			9017	5.56
POND		100	A	0	0.53	1.56	0	0.00
			B	1231	0.78	2.28	80	0.06
			C	0	1.13	3.14	0	0.00
			D	9215	2.12	4.7	1628	0.99
			TOTAL	10446			1708	1.06
CHANNEL		100	D	4280	2.12	4.7	756	0.46

POND FOR INITIAL RUNOFF RETENTION

INLET (BROAD CRESTED WEIR) See pond flow data at left
Q = CL(H*1.5), where Q=1.00 cfs, C=2.8 & H=0.40 ft.
therefore L = 1.41 ft. USE 18" WIDE ENTRANCE CHANNEL

POND
REQUIRED
NEW IMPERVIOUS AREA CREATED = 6214 sf
VOLUME = (6214)(0.44-0.10)/12 = 176 cf

PROVIDED

ELEVATION	AREA	VOLUME
61.0	249	
		179 cf
61.5	468	

BALANCE OF RUNOFF TO POND (DURING A 100 YEAR STORM) IS ROUTED, VIA SIDEWALK CULVERT, TO STREET.

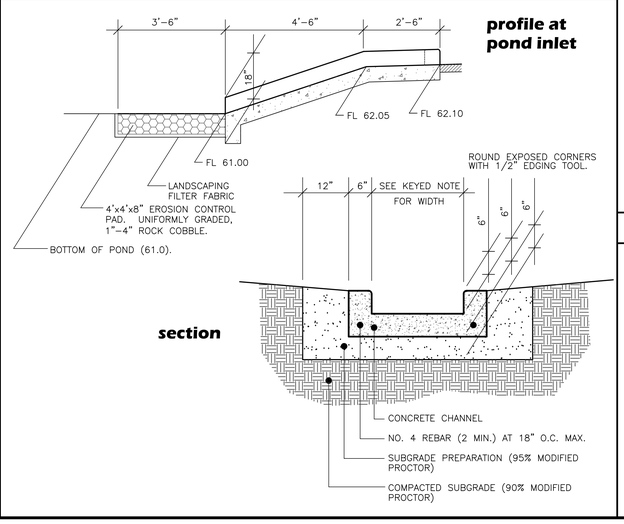
OUTLET (BROAD CRESTED WEIR) See pond flow data at left
Q = CL(H*1.5), where Q=1.06 cfs, C=2.8 & H=0.40 ft.
therefore L = 1.49 ft. USE 18" WIDE CHANNEL & SIDEWALK CULVERT

CHANNEL FLOW FROM ROOF

RECTANGULAR CHANNEL ALONG BUILDING

Q = 1.49A(R*0.67)(S*.050)/n, where Q=0.46 cfs,
S=0.0130'/', n=0.013
USE B=1.0 ft, therefore D=0.19 ft & V=2.4fps

D-CONCRETE CHANNEL



NO.	REVISIONS DATE	BY
1	01/04/16	JJB

BORDENAVE DESIGNS
P.O. BOX 91184, ALBUQUERQUE, NM 87199-1184
PH. (505)823-1154 FAX (505)307-3105
CELL 480-6812 jbordenavedesigns@comcast.net

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR NO. 5110 NEW MEXICO JEAN J. BORDENAVE

02/11/15

PERMIT/BID SET 01/15/2015

GORMAN WAREHOUSE AND WORKSHOP
1330 12th STREET NW
ALBUQUERQUE, NM 87104

st price design studio
Joseph B. Bunnnide Jr. ARCHITECT
3700 Coors Blvd. NW Suite E
Albuquerque, New Mexico 87120 505.345.3800

DRAWN METO
CHECKED JJB
DATE 02/11/15
SCALE
JOB NO. 14-15
SHEET
OF S7 SHEETS