

# Tea Session with Registered Surveyors

28 Sept 2012

# Tea Session with RS

## ➤Agenda:

- 1) Pro-enterprise Ranking Survey results
- 2) CS Circular 2/2012 –Strata Void Areas
- 3) Survey of foreshore jetty with fenders
- 4) Enhancements on Cadastral Job Submission and Processing by 2015

# Pro-enterprise Ranking Survey (PERS)results

## 1) Pro-enterprise Ranking Survey (PERS)results

- PERS started in year 2006
- SLA ranked 6<sup>th</sup> out of 26 agencies in 2011
- SLA ranked 4<sup>th</sup> out of 26 agencies in 2012

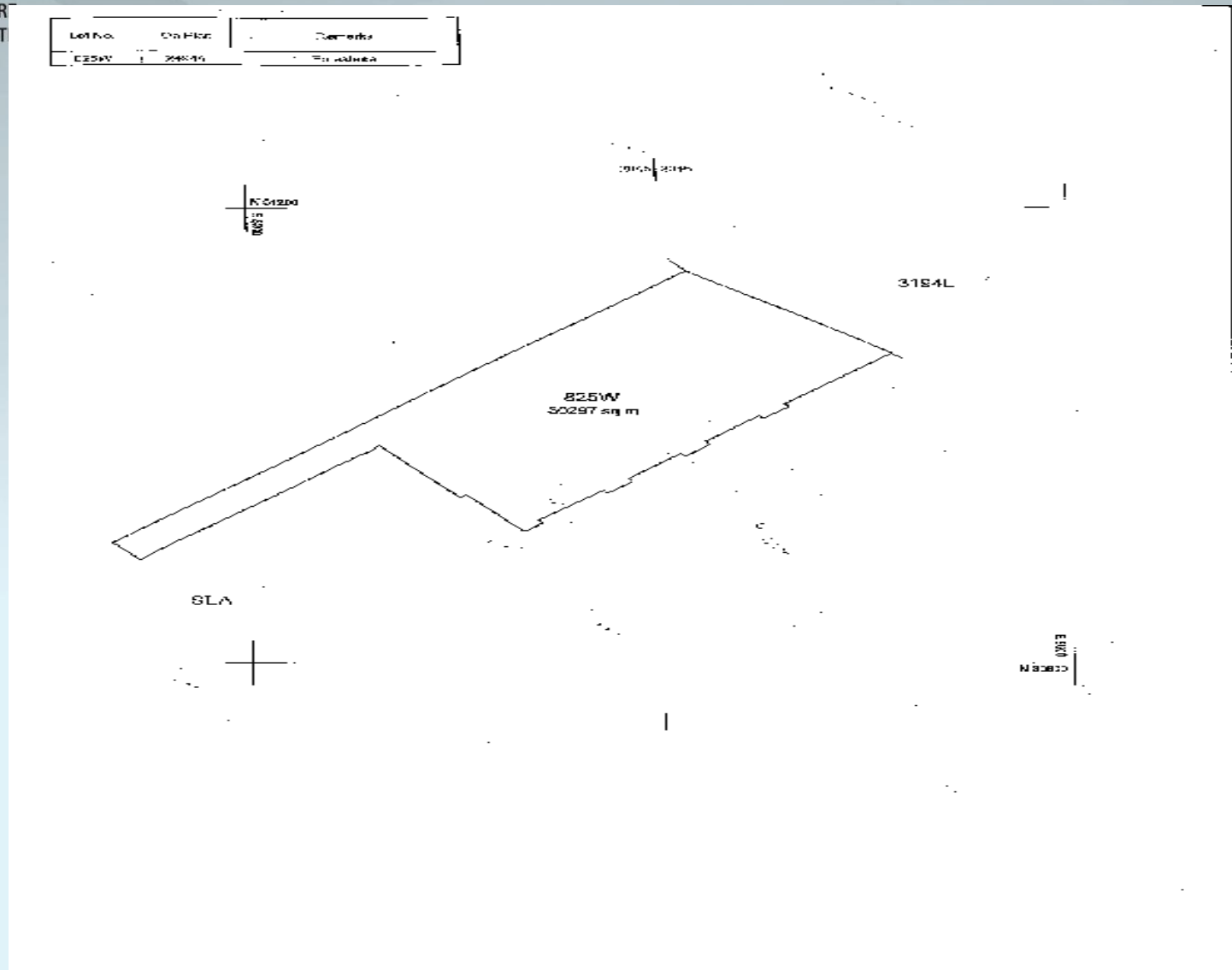
## **CS CIRCULAR 2/2012 -STRATA VOID AREAS FOR STRATA JOB SUBMISSION**

- Purpose is to enable prospective buyers to make better informed decisions when buying a property.
- New requirement to state 'INCLUDES STRATA VOID OF XXX SQ M' where 'XXX' is the void area, below the area column in the SSCT;
- RS' are required to tabulate the 'Total Strata Void Area' in addition to the breakdown of floor area and void area, the sub-total area of each storey and the total area of the strata lot;
- RS' are also required to indicate the statement 'INCLUDES STRATA VOID OF XXX SQ M' under a new column 'Plan\_Area\_Description' in the CPST\_Information.xls file.
- This is applicable to all CPST jobs, including HDB strata jobs.
- For strata lots where there are NO strata voids, there is NO need to show or tabulate the 'Total Strata Void Area' in the CPST, FD and CPST\_Information.xls file.

# **CS CIRCULAR 2/2012 -STRATA VOID AREAS FOR STRATA JOB SUBMISSION**

➤ [CS CIRCULAR 2/2012](#)

# Survey of foreshore jetty with fenders



# Survey of foreshore jetty with fenders

- Please inform clients that for survey of foreshore:
  - If the jetty cannot operate without the fenders, then it should be included in the lot boundary.
  - If they can operate without the fenders, then they should remove the fenders.

# **Enhancements on Cadastral Job Submission and Processing by 2015**



# Outline

- **Existing Issues**
  - Too many forms
  - Laborious check lists
- **Intelligent Digital Data File**
  - LandXML
- **Benefits**
  - Speed Up the Approval Process
  - Save Cost and Time
- **Supports for Surveyors**

# Too Many Forms

## Survey Report

**Survey Report**  
This form may take you 10 minutes to fill in.

SLA  
SINGAPORE LAND AUTHORITY

No. 5. (i) SLA/SVY : 5394-2007, 3610-2008, 3074-2009, 3962-2010  
(ii) Surveyor's ref : LT/3858 Location : UBI RD 1 / LINK / AVE 3 & 4  
(iii) Approved plan : WPP1\_ES20110207R0164

**Land Lots : 6570X & 6571L, 6645M & 6646W, 6689C & 6690X, 6931V & 6932P**

No. 10. (i) Subject Registered Surveyor's Confirmation  
(ii) Field N.A. ☐  
(iii) (a) ISN Control Markers  
(i) Acceptable ISN control markers SM14137, SM14349, SM14346, SM14347  
(ii) Unacceptable ISN control markers  
(b) Reasons for revision of SVY 21 coordinates  
(iii) Sin Nos :  
(iv) (c) Is the demarcation following Appd/ R/S / Authorised Plan? Yes ☐ No ☐

No. 12. (i) 2. Computations N.A. ☐  
(ii) (a) Misclose  
(i) Main traverse loop 1:20168, 1:478530, 1:15506  
(ii) Sub-traverse loop  
(b) Difference between surveyed area and alienated area  
(i) Is the difference in area within 1%? Yes ☐ No ☐  
(ii) If No, is clearance obtained from relevant authority/party? Yes ☐ No ☐

No. 14. (i) Strata Lots :  
(ii) Accessory Lots :  
(iii) No. Subject Registered Surveyor's Confirmation  
(iv) 3. Field N.A. ☐  
(v) (i) Is there any private enclosed area? Yes ☐ No ☐  
(ii) Are the details following building plan? Yes ☐ No ☐  
(iii) Are the strata boundaries following diagrammatic plan? Yes ☐ No ☐  
(vi) See FD pg  
(vii) See FD pg

No. 15. (i) 4. Survey of Common Property N.A. ☐  
(ii) (i) Is there any subdivision of existing strata lot into strata lots and common property? Yes ☐ No ☐  
(iii) Is there any amalgamation of existing strata lots with common property? Yes ☐ No ☐

QP-SVY-06-F07-08 Page 1 of 3  
QP-SVY-06-F07-08 Page 2 of 3

### Forms

We have listed the forms that Registered Surveyors may be required to fill for your easy reference and action. Please click on the relevant link:

- [EDM Calibration Booking Form](#)
- [Checklist for Cadastral Survey under SVY21 Datum](#)
- [Checklist for Inspection of Strata Certified Plan](#)
- [Checklist for RT plan under SVY21](#)
- [Calculation of Survey Fee Payable to Chief Surveyor](#)
- [Engagement of Registered Surveyor and Application for New Lot Numbers](#)
- [Survey Report](#)
- [Comparison of Areas](#)
- [Certificate in relation to Encroachment](#)
- [Request for ISN Markers](#)
- [Request for Survey Document Number](#)
- [Request for SVY21 Coordinates](#)
- [Submission of ISN GPS Observation](#)
- [Application Form for SiReNT Services](#)
- [Authorisation for Deduction of Survey Fees](#)

### Reference Documents

- [Certificate of Employment of Assistants of Registered Surveyor](#)
- [Notice to enter Land / Flat to do Boundary Survey](#)

**Request for SVY21 Coordinates**  
This form may take you 10 minutes to fill in.

Your Ref: \_\_\_\_\_  
Our Ref: \_\_\_\_\_  
Date: \_\_\_\_\_

Chief Surveyor  
CERTIFICATION IN RELATION TO ENCROACHMENT (PURSUANT TO RULE 15 OF BOUNDARIES AND SURVEY MAPS (CONDUCT OF CADASTRAL SURVEYS) RULES)

SURVEY OF LOT \_\_\_\_\_ MK/TS AT \_\_\_\_\_

I, \_\_\_\_\_, a surveyor registered under the Land Surveyors Act (Cap. 156), certify that:

(a) there is/is not an encroachment affecting any land parcel adjoining the land parcel under my survey;  
(b) (if there is encroachment affecting any land parcel adjoining the land parcel under my survey) the particulars of the encroachment are as follows:  
(i) Lot and "Mukim"/TS No. of adjoining land parcel:  
(ii) Ownership of adjoining land parcel: \*State / Private  
(iii) The encroachment is as shown in: (state survey document)  
(iv) Description of encroachment:  
(v) The encroachment \*was not created by the purchaser or owner of the land parcel under my survey; and  
(c) (if the encroachment was created by the purchaser or owner of the land parcel surveyed by me) the encroachment has been resolved and the encroachment has been resolved by: (describe the manner of resolution). A copy of (describe documentary evidence of resolution of encroachment) is attached.

(Signature and date of certification)  
Registered Surveyor (Digitally signed)

\* Delete whichever is inapplicable.

QP-SVY-06-F13-03 Page 1 of 1

**Request for SVY21 Coordinates**  
This form may take you 10 minutes to fill in.

Customer Details  
Registered Surveyor  
Please enter Professional Number ONLY: \_\_\_\_\_  
Non Registered Surveyor  
Customer Name: \_\_\_\_\_  
Email Address: \_\_\_\_\_  
Phone Number: \_\_\_\_\_

**Lot Numbers**  
Example: MK 99 9999SV

Requested by Registered Surveyor / Non-Registered Surveyor

QP-SVY-06-F13-03 Page 1 of 1

## Request for SVY 21 Coordinates

## List of Forms

## Engagement of RS and Application for New Lot Numbers

**Engagement Of Registered Surveyor and Application for New Lot Numbers**  
This form may take you 10 minutes to fill in.

SLA  
SINGAPORE LAND AUTHORITY

**Particulars of Land Owner**

1 Name \* (Mr / Mrs / Ms / Dr) 2 Address  
Postal Code  
3 Person to contact (if applicable) 4 E-mail  
5 Tel / H/P No. 6 Fax No.  
7 \* I / We have engaged the following surveyor registered under the Land Surveyors Act to carry out the cadastral survey in accordance with Boundaries and Survey Maps Act and its related Rules. Signature Date

**Application for New Lot Numbers by Registered Surveyor**

1 Parent Lot Nos. 2 New lots required: Quantity  
(i) MK No.: Land lots :  
(ii) Lot Nos.: (i) Land lots :  
(ii) Airspace lots :  
(iii) Subterranean lots :  
(iv) Strata lots :  
(v) Strata Provisional lots :  
(vi) Accessory lots :  
3 Amalgamation (To be completed only if applicable) (Mark to confirm)  
Where amalgamation is involved, lots to be amalgamated are held under:  
(i) Same ownership ☐  
(ii) Same system of registration ☐  
(iii) Same tenure ☐  
(iv) If leasehold, date of expiry is the same ☐  
4 New lot numbers are not required. For issuance of Survey file number only. ☐

**Acceptance by Registered Surveyor**

I, \_\_\_\_\_ (Name of Registered Surveyor)  
(i) Accept the appointment to carry out the above cadastral survey.  
(ii) \* Confirm that I have been authorised by the owner to amalgamate the lots.  
Signature (Digitally Signed) Date

Note: The Registered Surveyor will submit the completed form to the Chief Surveyor  
\* Delete whichever is inapplicable.

QP-SVY-06-F03-11 Page 1 of 1

## Encroachment Report

## Major Errors

### No. Item

1. Lot number : Incorrect lot number and check alphabet
2. Lot boundaries : Not set up or incorrectly set up in the survey documents
3. Demarcation:
  - a. Not following the original position of boundary
  - b. Deviation from request for survey(RS) plan
  - c. Incomplete
  - d. Encroachment is not resolved
4. Details :
  - e. Not fully picked up
  - f. Encroachment details not clearly defined
  - g. Wall details not described as party wall or garden wall
  - h. No offsets or radiations to details and party wall
  - i. Details not described in Field Book
5. SVY21 datum and ISN survey:
  - j. Failure to install or connect to for 4 ISN markers
  - k. Failure to adopt ISN survey procedures
6. Area : Incorrect computation
7. Coordinates are not consistent with SVY21 values
8. Strata lot boundaries : Not agreeing with Building Plan or the approved or authorised subdivision plans
9. Floppy diskette containing lot/strata information
  - l. Not submitted
  - m. Incorrect format used for uploading in Lot Base System

## Minor Errors

### No. Item

1. Boundary marks wrongly described
2. House numbers not shown on plan
3. Adjacent lot numbers and boundaries not shown or outdated
4. Extreme coordinates omitted or incorrectly shown on plan
5. Incorrect road names
6. Incorrect cadastral map numbers and grids
7. Incorrect Section 14(4) plan reference
8. Incorrect references of records
9. IRAS notification of addresses not submitted
10. Incorrect height on Elevation Sketch

**Source: Most Frequent  
Errors @**

**<http://www.sla.gov.sg/>** ©SLA 2012



SINGAPORE  
LAND AUTHORITY

# Laborious Check Lists

## Check List for Certified Plan

2.6  
2.7  
2.8  
2.9  
2.10  
2.11  
2.12  
2.13  
2.14  
2.15  
2.16  
2.17  
2.18  
2.19  
2.20  
2.21  
2.22  
2.23  
2.24  
2.25  
2.26  
2.27  
2.28  
2.29  
2.30  
2.31  
2.32  
2.33  
2.34  
2.35  
2.36  
2.37  
2.38  
2.39  
2.40  
2.41  
2.42  
2.43  
2.44  
2.45  
2.46  
2.47  
2.48  
2.49  
2.50  
2.51  
2.52  
2.53  
2.54  
2.55  
2.56  
2.57  
2.58  
2.59  
2.60  
2.61  
2.62  
2.63  
2.64  
2.65  
2.66  
2.67  
2.68  
2.69  
2.70  
2.71  
2.72  
2.73  
2.74  
2.75  
2.76  
2.77  
2.78  
2.79  
2.80  
2.81  
2.82  
2.83  
2.84  
2.85  
2.86  
2.87  
2.88  
2.89  
2.90  
2.91  
2.92  
2.93  
2.94  
2.95  
2.96  
2.97  
2.98  
2.99  
3.00

## Check List for Strata Certified Plan

CHECKLIST FOR INSPECTION OF STRATA CERTIFIED PLAN

7  
8  
9  
10  
11  
12  
13  
14  
15  
16

Query/Clarification Sheet

## Query / Clarification Sheets



# Intelli


[illegible]

```

- <xs:element name="Parcel">
+ <xs:annotation></xs:annotation>

</SurveyHeader Element>
- <xs:element name="SurveyHeader">
+ <xs:annotation></xs:annotation>
+ <xs:complexType mixed="true">
- <xs:choice minOccurs="0" maxOccurs="unbounded">
+ <xs:choice>
<xs:element ref="Annotation" minOccurs="0" maxOccurs="unbounded"/>
<xs:element ref="AdministrativeArea" minOccurs="0" maxOccurs="unbounded"/>
<xs:element ref="AdministrativeDate" minOccurs="0" maxOccurs="unbounded"/>
<xs:element ref="CoordinateSystem" minOccurs="0"/>
<xs:element ref="Units" minOccurs="0"/>
<xs:element ref="MapPoint" minOccurs="0" maxOccurs="unbounded"/>
<xs:element ref="Personnel" minOccurs="0" maxOccurs="unbounded"/>
<xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/>
<xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/>
<xs:element ref="SurveyorCertificate" minOccurs="0" maxOccurs="unbounded"/>
<xs:element ref="SurveyorObsSurvey" minOccurs="0" maxOccurs="unbounded"/>
<xs:element ref="HeadOfPower" minOccurs="0" maxOccurs="unbounded"/>
</xs:choice>
<xs:attribute name="name" type="xs:string" use="required"/>
<xs:attribute name="desc" type="xs:string"/>
<xs:attribute name="purpose" type="purposeType"/>
<xs:attribute name="startTime" type="xs:date"/>
<xs:attribute name="endTime" type="xs:date"/>
<xs:attribute name="surveyor" type="xs:string"/>
<xs:attribute name="surveyorFirm" type="xs:string"/>
<xs:attribute name="surveyorReference" type="xs:string"/>
<xs:attribute name="surveyorRegistration" type="xs:string"/>
<xs:attribute name="surveyPurpose" type="xs:string"/>
<xs:attribute name="type" type="surveyType"/>
<xs:attribute name="class" type="xs:string"/>
<xs:attribute name="county" type="xs:string"/>
<xs:attribute name="applyAtmosphericCorrection" type="xs:boolean"/>
<xs:attribute name="pressure" type="xs:double"/>
<xs:attribute name="temperature" type="xs:double"/>
<xs:attribute name="applySealLevelCorrection" type="xs:boolean"/>
<xs:attribute name="scaleFactor" type="xs:double"/>
<xs:attribute name="sealLevelCorrectionFactor" type="xs:double"/>
<xs:attribute name="combinedActor" type="xs:double"/>
<xs:attribute name="jurisdiction" type="jurisdictionType"/>
<xs:attribute name="submissionDate" type="xs:date"/>
<xs:attribute name="documentStatus" type="documentStatusType"/>
<xs:attribute name="surveyFormat" type="surveyFormatType"/>
<xs:attribute name="surveyStatus" type="surveyStatusType"/>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>

```



**Automatic Checks**



**Direct Read and Update in CAD**

# What is in LandXML?

**Survey Plan  
Descriptions**

**Address  
Information**

**Surveyor's  
Details**

**Administrative  
Information**

**Survey Document  
Descriptions (e.g.  
Survey Report,  
Encroachment)**

**Amendment  
History**

**Dimensions of  
Lots and  
Identifiers**

**Survey Mark  
Descriptions**

**Equipment Information  
(e.g. EDM Calibration,  
Instrument Precisions)**

**Observation  
Details**

# Benefits

Reduces Clarifications / Queries due to Missing or Incorrect Information

Improves Checking Process

Data file can be read and updated in CAD directly – Cost Saving in Drafting

Information from data file can intelligently be retrieved - no need to be re-entered

Speed up the approval process

Save Time and Money

# Supports for Surveyors

- **Most CAD software are able to create LandXML**
- **To provide a mechanism (e.g. a portal) for**
  - conversion to LandXML during the interim period
  - pre-validating submissions (error checking)
- **To provide User Guides**
  - “how to get started”
  - steps to generate LandXML document
- **To provide Training Courses**
- **To form a Working Group with SISV**



**Thank You!**