**Attachment A – Jinks Creek Recommended Shellfish Sampling Protocols & Site Plan**

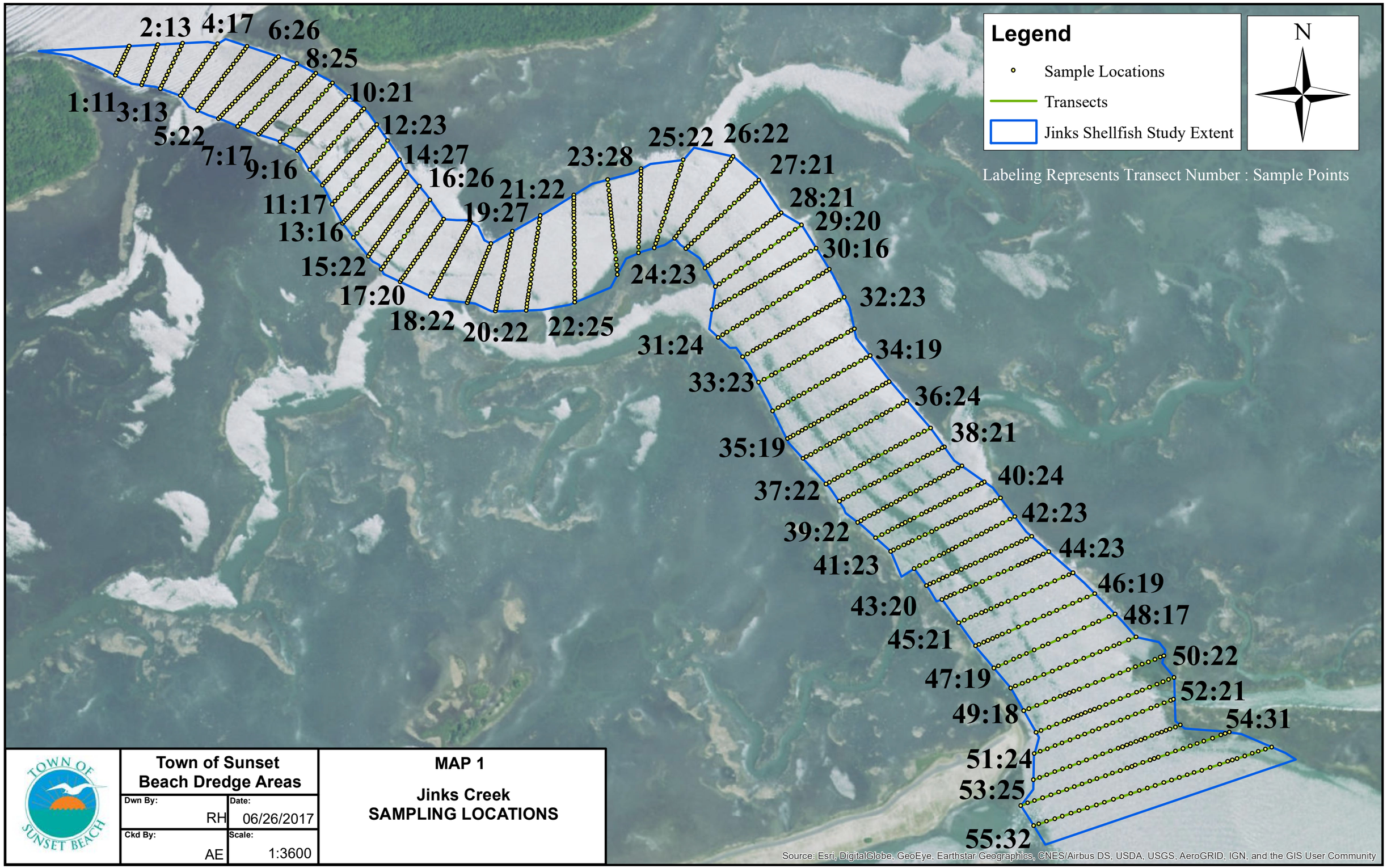
**Methods** - Sample at the rate of at least 25 one-meter square samples per acre with no less than 10 samples per project site. Samples should be taken on a depth-stratified basis, either randomly or along transects. Sampling will be taken as close to low tide as reasonable to limit water depth. For locations below MLW and with poor visibility, sampling will be conducted using a clam rake or oyster tongs with attached pole in an approximate one-meter square area. If shellfish are found, a count (if able to be safely performed) will be performed at the sample location. For areas within the intertidal zone where there is less than 50% shellfish coverage of the meter square, a full count of individual shellfish will be performed. In samples that are above 90% shellfish coverage, a 25cm or a ¼ meter quadrat subsample will be sampled with the number of individual shellfish (type and species) extrapolated to the full one-meter square. Data presented in the survey report will generally be the same for intertidal and subtidal areas, with detailed notes on method of survey (rake, tongs, visual count, estimated count for deeper areas) included for each sample. The tidal zone of each sample (supratidal, intertidal or subtidal) will also be clearly indicated on the field data sheet.

**Data Collection**- Samples should include at least the following data:

- Location for every sample on a map of the site
- Date and approximate local time of sampling work
- Depth (and lunar tide stage where applicable)
- Bottom salinity and water temperature – will take daily start of work measurements in the approximate area where surveys are being performed. The daily tidal point at which the measurement was taken will be included on the field data sheet.

For each sample:

- General bottom type (estimate: mud, sandy mud, muddy sand, sand, shell, SAV, macroalgae)
- Numbers of oysters and/or hard clams for each sample
- Optional data:
- Shell length (umbo to lip) in mm for each oyster and clam collected. – A categorical classification of spat/sublegal/legal oysters will be made based on NCDMF protocol.
- Other pertinent observations (such as SAV presence)

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| TOWN OF SUNSET BEACH | **Town of Sunset Beach Dredge Areas** | **MAP 1** |
| | Dwn By: RH / Date: 06/26/2017 | **Jinks Creek SAMPLING LOCATIONS** |
| | Ckd By: AE / Scale: 1:3600 | |