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OVERVIEW

Landscape and Irrigation Items have different documentation requirements for each unit of measure (UOM). All Landscape and Irrigation Item quantities must be counted, measured, calculated or based on plan. Documentation examples for a few selected Landscape and Irrigation Items are illustrated in this chapter. Some minor modifications may be required to show the unusual circumstances that may occur with different items, but the general format should be followed. If there are items which cannot be documented according to the following examples, contact the Construction Admin Services Section for assistance.

When material samples are taken for the Materials Division labs, refer to the AWP Sample Records document for details.

INSPECTOR'S RESPONSIBILITIES - LANDSCAPE AND IRRIGATION ITEMS

- Use the Agreement Estimate report as a reference to ensure that items and quantities are paid in the correct category (AEB).
- Use the Structure List-Landscaping list (Figure 7-1) and/or the Main Structure list, located in the Contract plans, to help identify items, quantities, descriptions and locations.

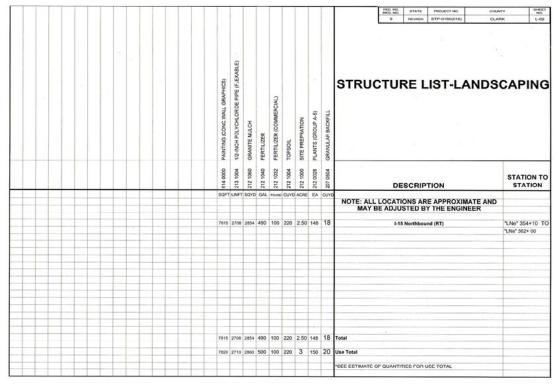


Figure 7-1: Example of a Structure List- Landscape and Irrigation

- Review the following for accuracy:
 - Special Provisions
 - · Supplemental Notices
 - · Change Orders

Note: When any changes are made to an item, reference the Change Order number in the DWR item posting remarks.

Turn in ALL Landscape and Irrigation Item calculation sheets to the Office Engineer.

DAILY WORK REPORT (DWR) - MOBILE INSPECTOR

- 1. Create a DWR in Mobile Inspector daily to document the activity being monitored. Refer to the <u>Mobile Inspector User Guide</u> for details on using this application.
 - · Report Details daily activities
 - Item Postings item(s) and quantity(s)
 - Equipment type, number and hours used
 - · Personnel title and hours
- 2. Record the following required information in the Report Details window (Figure 7-2):
 - Date
 - Weather
 - Low Temp and High Temp
 - Attachments: (N/A) Send ALL photos via email.
 - Remarks: Select the appropriate Remark Type. Verify with the Resident Engineer on what information is required.

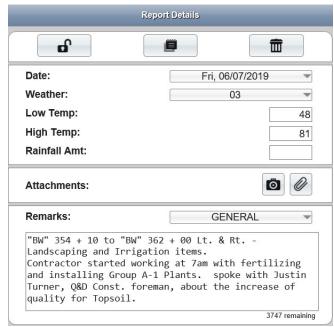


Figure 7-2: DWR Report Detail Window

- 3. Record the following required information in the New Item Postings window:
 - Item: Select the appropriate Project/Catg., if item is in more than one Project/Catg. Refer to the AEB report.
 - Contractor: ALWAYS the Prime Contractor (Subs are not allowed).
 - · Qty: Based on plan, measurements and calculations
 - Material Set: Select appropriate value (if applicable)
 - Location: Line Designation
 - Station From/To: Refer to Contract plans.
 - Offset Type: Enter the LT, RT, or CL.
 - Offset Dist.: Enter if known.

- Comments: Must show calculations when appropriate, refer to Calculation Sheet when appropriate (refer to Appendix B, Calculation Formulas, in this Manual for a Calculation Sheet example), other information relevant to item posting, and explanations when Attention Flag is checked.
- Attention Flag: Use to bring attention to Resident Engineer and Office Engineer for overruns and plan errors. Must enter Attention Comments.

NOTES for Landscape and Irrigation Item postings:

- If an each item has a specific location/station callout in the plans, then a separate posting will be done. It should NOT be grouped in a posting.
- If each items do NOT have a location/station callout but are grouped in a table or structure list, then they can be combined in one posting.
- Refer to Figure 7-3 through Figure 7-13 for examples of landscape and irrigation item postings with different UOM.



Figure 7-3: DWR Item Posting - Landscape ACRE

NOTES for Landscape ACRE (Figure 7-3):

- Payment for ACRE item will be based on field measure and Calculations.
- Calculation for ACRE = L x W ÷ 43560 (always use this number).
- Location: Enter the Line Designation
- Station From/To: Refer to Contract plans
- Offset Type: Enter the LT, RT, or CL.
- · Offset Dist: Enter if known
- Sig. Fig. = .01

NOTES for Landscape ACRE (Figure 7-4):

- Payment for ACRE item will be based on field measure and Calculations.
- Calculation for ACRE = L x W ÷ 43560 (always use this number).
- Location: Enter the Line Designation
- Station From/To: Refer to Contract plans
- Offset Type: Enter the LT, RT, or CL.
- · Offset Dist: Enter if known
- Sig. Fig. = .01
- NOTE: Collect seed tag and keep in the office until Plant Establishment has been achieved.

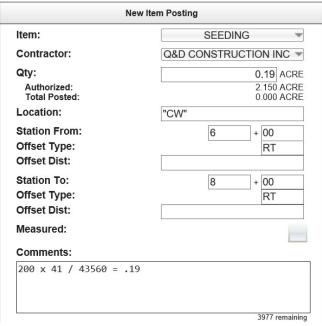


Figure 7-4: DWR Item Posting - Landscape ACRE



Figure 7-5: DWR Item Posting - Landscape CUYD

NOTES for Landscape CUYD (Figure 7-5):

- Payment for CUYD item will be based on plan quantity or field measure and calculations if different than plan.
- Calculation for CUYD if different than plan = L x W x D ÷ 27.
- Location: Enter the Line Designation
- Station From/To: Refer to Contract plans
- Offset Type: Enter the LT, RT, or CL.
- Offset Dist: Enter if known
- Sig. Fig. = .01

NOTES for Landscape CUYD by Truck (Figure 7-6):

- Payment for CUYD delivered by a truck that isn't weighed over a scale will be based on field measure and calculations.
- State the Truck Number and Number of Loads.
- Calculation for CUYD delivered by a truck that isn't weighed over a scale = L x W x D ÷ 27 x the



Figure 7-6: DWR Item Posting - Landscape CUYD by Truck



Figure 7-7: DWR Posting - Landscape EACH Combined

of loads.

- The calculations show the capacity for each truck.
 Multiply the number of loads by the truck capacity to get CUYD's.
- · Location: Enter the Line Designation
- Station From/To: Refer to Contract plans
- Offset Type: Enter the LT, RT, or CL.
- Offset Dist: Enter if known
- Sig. Fig. = .01

NOTES for Landscape EACH Combined (Figure 7-7)

- Payment for EACH item will be based on field count.
- This shows an EACH item combined.
- Location: Enter the Line Designation
- Station From/To: Refer to Contract plans
- Offset Type: Enter the LT, RT, or CL.
- · Offset Dist: Enter if known
- Sig. Fig. = .01

NOTES for Landscape GAL (Figure 7-8):

- Payment for GAL items will be based on field measurements and calculations.
- Calculations will consist of counting the drums used or measuring the container and calculating the quantity when a full drum is not used. If measured by another device show the calculations on how gallons were derived.

	New Item Posting		
Item:	FERTILIZER ▼		
Contractor:	Q&D CONSTRUCTION INC 🔻		
Qty:	110.00 GAL		
Authorized: Total Posted:	300.000 GAL 0.000 GAL		
Location:	"BW"		
Station From:	354 + 10		
Offset Type:	RT.		
Offset Dist:	"BW"		
Station To:	355 + 20		
Offset Type:	RT		
Offset Dist:			
Measured:			
Comments:			
2 Drums @ 55 gal. =	110gal. 3969 remaining		
Attention:	3909 Termanning		
Attention Comments:	_		
See email: DWR 2019-	6-7 KMM for container label.		
	208 remaining		

Figure 7-8: DWR Item Posting - Landscape GAL

Item:	1/2-INCH POLYVINYL CH ▼		
Contractor:	Q&D CONSTRUCTION INC ▼		
Qty:	1910.00 LFT		
Authorized: Total Posted:	2,000.000 LF7 0.000 LF7		
Location:	"BW"		
Station From:	354 + 10		
Offset Type:	RT.		
Offset Dist:	"BW"		
Station To:	360 + 10		
Offset Type:	RT		
Offset Dist:			
Measured:	✓		
Comments:			
Item completed			
**			

Figure 7-9: DWR Item Posting – Landscape LFT

- A photo of a label must be taken and emailed to the Office Engineer for backup to confirm the quantity of the container. This photo is saved to the appropriate Contract Files\Contract\07 Estimates directory.
- Location: Enter the Line Designation
- Station From/To: Refer to Contract plans
- Offset Type: Enter the LT, RT, or CL.
- · Offset Dist: Enter if known
- Check the Attention Flag to notify the Office Engineer there's an email regarding this Item Posting.

NOTES for Landscape LFT (Figure 7-9):

- Payment for LFT items will be based on field measurements.
- · Location: Enter the Line Designation
- Station From/To: Refer to Contract plans
- Offset Type: Enter the LT, RT, or CL.
- Offset Dist: Enter if known
- Sig. Fig. = .01

NOTES for Landscape LB (Figure 7-10):

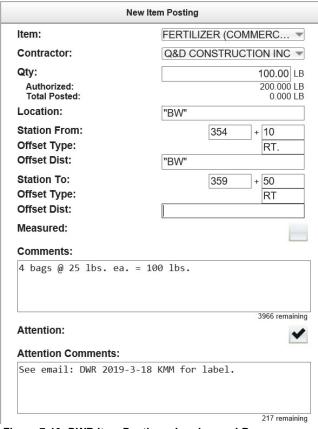


Figure 7-10: DWR Item Posting – Landscape LB

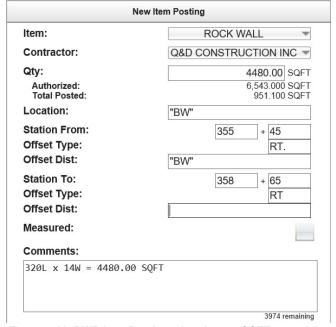


Figure 7-11: DWR Item Posting - Landscape SQFT

- Payment for POUND (LB) items will be based on plan quantity or field measurements and calculations if different than plan.
- A photo of a label must be taken and emailed to the Office Engineer for backup to confirm the quantity of the container. This photo is saved to the appropriate Contract Files\Contract\07 Estimates directory.
- Location: Enter the Line Designation
- Station From/To: Refer to Contract plans
- Offset Type: Enter the LT, RT, or CL.
- Offset Dist: Enter if known
- Check the Attention Flag to notify the Office Engineer there's an email regarding this Item Posting.

NOTES for Landscape SQFT (Figure 7-11):

- Payment for SQFT item will be based on field measure and Calculations.
- Calculation for SQFT = L x W
- Location: Enter the Line Designation
- Station From/To: Refer to Contract plans
- Offset Type: Enter the LT, RT, or CL.
- · Offset Dist: Enter if known
- Sig. Fig. = .01

NOTES for Landscape SQFT (Figure 7-12):

Item:	DETAIL PAINTING The state of
Contractor:	Q&D CONSTRUCTION INC
Qty:	380.00 SQFT
Authorized: Total Posted:	6,586.350 SQFT 0.000 SQFT
Location:	Str. I-1951 East Stem Wall
Station From: Offset Type: Offset Dist:	+
Station To: Offset Type: Offset Dist:	+
Measured:	
Comments:	
Paid plan qty. per p	lan sheet L607

Figure 7-12: DWR Item Posting - Landscape SQFT

New Item Posting Item: **PAINTING** Contractor: Q&D CONSTRUCTION INC -Qty: 881.67 SQYD Authorized: Total Posted: 1,000.000 SQYD 97.700 SQYD Location: "BW" Station From: 354 + 90 Offset Type: RT Offset Dist: Station To: 360 10 Offset Type: RT Offset Dist: Measured: Comments: 529 L x 15 W / 9 = 881.67 SQYD 3969 remaining

Figure 7-13: DWR Item Posting – Landscape SQYD

- Detail Painting is the ONLY SQFT item that can be paid per plan. Refer to the plan sheet where it identifies the paid qty.
- Location: Refer to Contract plans
- Sig. Fig. = .01

- NOTES for Landscape SQYD (Figure 7-13):
- Payment for SQYD item will be based on field measure and Calculations.
- Calculation for SQYD = L x W ÷ 9
- Location: Enter the Line Designation
- Station From/To: Refer to Contract plans
- Offset Type: Enter the LT, RT, or CL.
- · Offset Dist: Enter if known
- Sig. Fig. = .01

- 4. Record the following required information in the New Equipment window (Figure 7-14 and Figure 7-15):
 - Contractor: Actual contractor performing the work (include subs).
 - Type: Select from the Equipment list
 - Used: How many of each type.
 - · Hours Used: Total hours in use.
 - Comments: Details of the type of equipment (e.g., diesel, HP, model, make). Include equipment attachment information if applicable.

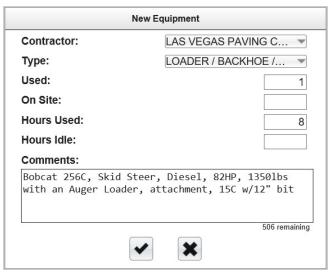


Figure 7-14: DWR Equipment Entry



Figure 7-15: DWR Equipment List

- 5. Record the following required information in the New Personnel window (Figure 7-16 and Figure 7-17):
 - Contractor: Actual contractor performing the work (include subs).
 - Type: Select from the Personnel list.
 - Number: How many of each title.
 - Total Hours: Total hours worked.
 - Comments: Details of personnel type (e.g., foreman w/name, laborer, truck driver).

New F	Personnel		
Contractor:	LAS VEGAS PAVING C LABORER FOREMAN		
Personnel:			
Employee:	N/A		
Decision Class:	Select ▼		
Number:	1		
Total Hours:	8		
Comments:			
Foreman - Cody Bellinger			
	3975 remaining		
•	×		

Figure 7-16: DWR Personnel Entry



Figure 7-17: DWR Personnel List

6. Complete a final review of the DWR, lock the report, and Sync Data.

Note: When the Sync Data process has completed, the information is uploaded into an AWP DWR, where it is reviewed and Approved for processing progress payments.

DAILY WORK REPORT (DWR) - AWP EDITS

The Officer Engineer reviews each Inspector's DWRs for required entries and accuracy. If edits are needed on a DWR, the Inspector who created it may be required to log into the AWP program on a computer (not the iPAD) and complete the edits. Refer to Chapter 5, Daily Work Reports, Section, Editing a Mobile Inspector DWR, in the AWP User Guide With Materials for details.

OFFICE ENGINEER'S RESPONSIBILITIES - LANDSCAPE AND IRRIGATION ITEMS

- Collect all Material Certifications. Scan and save them to the appropriate Contract Files\Materials\03 Cert & Test Reports\3.# directory. Each
 Material Certification must have the contract ID, bid item and represented quantity entered. Hand-written entries are acceptable for the contract ID, bid item and quantity.
 - Name the scanned certificate file(s) with the contract ID, Material Code Name and description CERT (e.g., 03094 M6050001 Plastic Pipe
 CERT.pdf). The Material Code Name and description is found in the NDOT Power BI, AWP Reports, Certification Tracking report.
- Create an AWP Materials Cert Sample Record for each Material Certification received. Refer to the <u>AWP Cert Sample Record Creation</u> document and Chapter 24, Progress Payments, in this Manual for details.
- Save Landscape and Irrigation items general information photos in the appropriate Contract Files\Contract\ 03 Multimedia\3.# Photos directory.
- Save Landscape and Irrigation items Gallon and Pound label photos to the appropriate Contract Files\Contract\07 Estimates directory to confirm the quantity of the container.
- Review Landscape and Irrigation item calculation sheets for accuracy and save electronically in the appropriate Contract Files\Contract\07
 Estimates\7.# Calc Sheets directory using this naming convention: DWR YYYY-MM-DD Inspectors Initials, (e.g. DWR 2017-03-19 KMM).
- Distribute executed copies of Change Orders to Inspectors.

DAILY WORK REPORT (DWR) - AWP

When a Mobile Inspector DWR is locked by an Inspector, the information is uploaded into an AWP DWR. Refer to Chapter 5, Daily Work Reports, in the AWP User Guide With Materials for details.

- Verify the following:
 - · Information in the Remarks
 - Information in the Contractor On Site tab
 - Information in the Contractor Equipment tab
 - Information in the Contractor Personnel tab
 - Items are paid correctly according to the contract documents (e.g., plans, supplemental notices, Change Orders).
 - Item quantities
 - Quantities in postings are documented to the correct Significant Figure (.01)
 - · Material Set is correct.
 - Stations and Line Designations in the Locations
 - Calculations are correct.
 - Comments reference calculation sheets, if applicable.

Note: Length does not always equal the difference between the beginning and ending station. Sometimes there is a curve or an obstacle that will affect the distance. Always check with the Inspector before assuming the calculations are incorrect.

- Approve the DWR if everything is correct.
- If there are edits required, the Office Engineer may complete them and add a DWR Note with their name, date, and details of the correction.
 The DWR can then be Approved.
- If there are edits which need to be completed by the Inspector who created the DWR, the Inspector will be required to log into the AWP program on a computer (not the iPAD) to complete the edits.
- Review the edited DWR and Approve.