A Sum Greater Than Its Parts

Integrating Three Due Diligence Workstreams for Deeper ESG Insights

Since Bridge House Advisors' founding in 2017, we have provided three (3) pre-investment due diligence services to our investor clients: environmental due diligence (EDD), environmental, social and governance (ESG), and property condition assessments (PCA). For the latter, Bridge House offers a modified approach to the traditional PCA, called an Asset Capital Expenditure Evaluation (ACE), whose primary output is a 10-year capital expense forecast for the building envelope and back-office systems. A more detailed definition of each workstream along with key drivers is provided in Table 1 below:

Table 1: Drivers and Definitions of Pre-Investment Due Diligence Workstreams

EDD	ESG	ACE
• Initially driven by lenders, later by insurers • 1993 ASTM Standard • Innocent Purchaser Protections / All Appropriate Inquiry • Backward look in time on prior facility and land usage	• Primarily driven by LP expectations --- Responsible Investment • Evolutionary, not revolutionary; expansion beyond EDD • Forward look in time over the anticipated investment timeframe • Like EDD, focus is on risk --- but also about identifying opportunities for value creation	• Modified version of the ASTM PCA • Primarily used by Real Estate Investors and Property Managers • A more targeted and commercial approach to the PCA to assess capital expenditures to maintain, repair, and replace primary structural and mechanical building systems

ACE Overview

For the uninitiated, the primary purpose of the ACE is to assess and estimate the near-term costs and longer-term capital reserves required for building structural systems (pavement, roof, foundations, etc.) and mechanical, electrical, and plumbing systems. Cost estimates and replacement timeframes are based on a physical inspection and the remaining useful life of the component or system (based on manufacturer specifications). Typical output is summarized in Table 2 below. This work product creates a useful view for the investment team for improved planning of the opening balance sheet or to inform further price negotiations for the deal.

The EDD workstream, on the other hand, is utilized to evaluate a property or piece of land for possible environmental contamination risks, such as groundwater or soil contamination or legacy environmental liabilities. However, it would not be uncommon to find that the costs to mitigate an environmental condition such as a leaking underground storage tank could pale in comparison compared to the costs of

a roof or industrial boiler replacement. Given this, Bridge House has found that an EDD / ACE pairing for pre-investment due diligence is often well-received by the investment team.

Table 2: 10-Year ACE Cost Table

Property Component	Year 1 2021	Year 2 2022	Year 3 2023	Year 4 2024	Year 5 2025	Year 6 2026	Year 7 2027	Year 8 2028	Year 9 2029	Year 10 2030	10 Year Totals
Pavements											
Full depth replacement (pond loop)		$29,400									$29,400
Full depth replacement (north parking lot)	$336,000										$336,000
Foundations and Structures											
No significant costs											$0
Exterior Walls and Fenestrations											
Replacement of overhead doors			$4,000	$3,600	$22,400						$30,000
Replacement of CMU/concrete retaining walls for pump house and well house					$60,000						$60,000
Roofing Systems											
Remove and replace standing seam metal roof (warehouse addition)	$205,200										$205,200
PVC roof removal and replacement (main building)										$356,250	$356,250
Mechanical, Electrical, and Plumbing											
5,000 MBTU Steam Boiler replacement							$262,600				$262,600
Air handler replacement								$93,000			$93,000
Fire Protection and Life Safety											
Replacement of 115 HP diesel engine and fire pump (1,000 gpm, 104 psi)			$65,600								$65,600
ADA											
No significant costs											$0
	$541,200	**$29,400**	**$69,600**	**$3,600**	**$82,400**	**$0**	**$262,600**	**$93,000**	**$0**	**$356,250**	**$1,438,050**

Climate Risk & Business Resilience

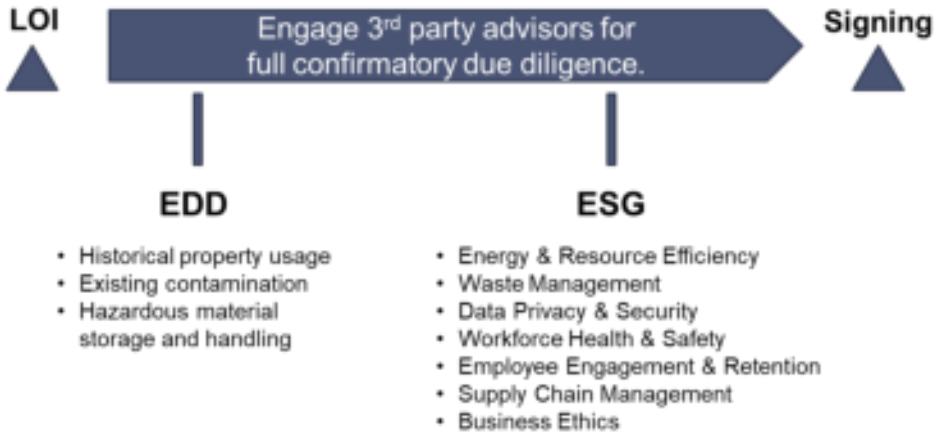
The other aspect of the ACE workstream that is gaining market momentum is the intersection of physical climate risk and business resilience at the facility level. Business continuity considerations, such as flood zone risk, severe weather events, water supply, life safety and fire protection, back-up power generation, and physical site security can all be investigated as part of the ACE workstream. These asset level resiliency findings can then be cross-walked with site-level physical climate risk models to inform more targeted climate risk mitigation strategies.

In addition, the current energy performance of the building(s) can also be assessed including benchmarking, the identification of opportunities for equipment and systems upgrades, and the availability of local utility company incentives for energy efficiency projects. Finally, accessibility considerations (i.e., compliance with the Americans with Disabilities Act), an ESG theme, can also be incorporated into the ACE workstream.

A Sequencing Problem

Now that we've described the ACE workstream, let's set that aside for a moment. The more common of the three workstreams in today's M&A due diligence, in terms of consistent execution, are EDD and ESG. The former having been utilized for decades where land and/or physical property were part of the transaction and the latter, especially recently, applied on just about every deal to satisfy responsible investment expectations from LPs and other external stakeholders. When the EDD and ESG workstreams are both needed on a transaction, Bridge House has observed that the sequencing often resembles what is shown in Figure 1:

Figure 1: Observed Sequencing of EDD and ESG Workstreams



Per the above figure, we typically find that 1) the EDD workstream is kicked off prior to the ESG review, and 2) the EDD workstream could include site/facility visits whereas the ESG review is almost always a desktop exercise focused on the corporate level as opposed to individual sites. Here's the issue: **This sequencing does not take full advantage of the site assessor's time onsite and, as a result, something important from an ESG perspective could get missed**.

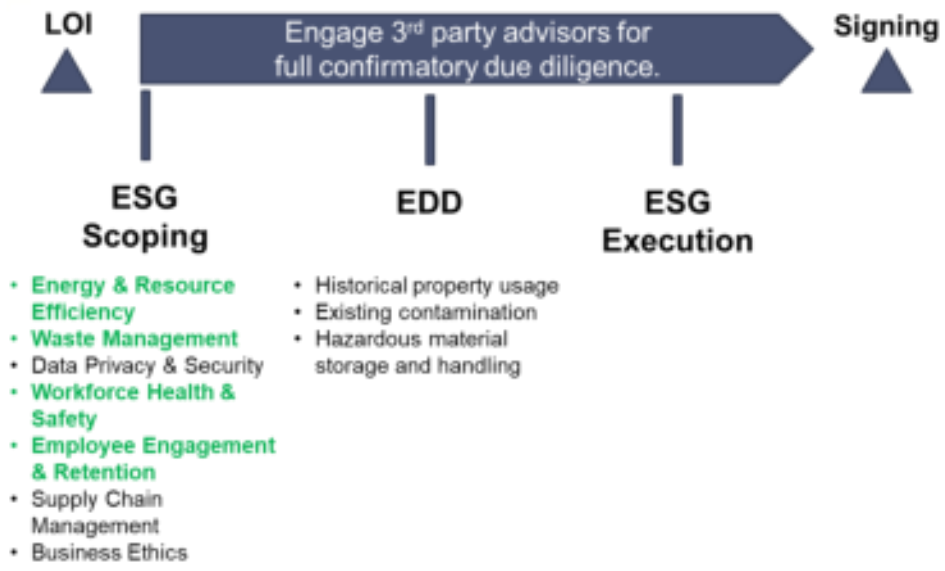
For example, Figure 2 below, which was taken during a facility walk-through, is a site photo showing condensate on the exterior of an exhaust duct that resulted in a "mini rainforest" in a room full of electrical panels and transformers. Beyond evidence of **poor mechanical system design**, this situation is

potentially a **business continuity risk** as well as a **workforce health and safety risk**. With the above sequence of due diligence workstreams in mind, the EDD assessment probably would have missed this finding. Why? Because it is not part of the typical EDD scope and, as a result, would not have found its way into the advisor's report. This finding would also have been missed by the subsequent ESG review. Why? Because the ESG review is a desktop exercise and visibility to facility-level issues is limited at best.

Figure 2: Facility Walk-Through Photo

So, what if we modified the sequence of EDD and ESG activities, per Figure 3 below? By just scoping (not necessarily executing) the ESG review earlier in the process we can identify the material ESG topics that are not only relevant for the entire business but could also have importance at the facility level. With this approach, we can arm the site assessor with a wider set of topics (highlighted in green in Figure 3) to investigate and maximize his/her time onsite. Per Figure 3 we would prepare the site assessor to investigate energy and resource efficiency, waste management, workforce health and safety, and employee engagement and retention. Any ESG findings and observations noted during the site visit, while not captured in the EDD work product, would be passed along to the ESG workstream resulting in deeper insights to the investment team that would not have been captured by the desktop ESG review, such as the "mini rainforest" pictured above.

Figure 3: Revised Sequencing of ESG and EDD Workstreams



The Trifecta

Now let's imagine a transaction where land and facilities are owned by the Target company and past and current operations are such that an investigation into environmental liabilities (i.e., EDD) is warranted. If these three due diligence workstreams are run independently, perhaps by even three separate advisors, here's what could happen:

Desktop ESG review reveals future flooding risk due to the effects of climate change.

Address	Fire	Flood	Heatwaves	Drought (SPEI)	SLR
3505 NW 112 Street, Miami, FL	Low	High	High	Medium	Low
3939 Airway Circle, Clearwater, FL	Low	High	Medium	Medium	Medium
729 Palmer Road, Rockwell, NC	Low	Low	Medium	Low	Low
615 Ferry Street, Newark, NJ	Low	Low	Medium	Low	Low
30 Pack Drive, Weyers Cave, VA	Low	Low	Medium	Low	Low

EDD confirms site is a hazardous materials handler with a designated chemical storage area.

PCA/ACE reveals storage area foundation / walls in very poor condition. Failure could occur.

We can see from this illustration that the ESG review revealed that some locations within the facility portfolio were at a higher risk of flooding events in the future, resulting in an overall "medium" risk rating. The EDD assessment found proper chemical storage at a facility and was given a "low" risk rating, however, the PCA/ACE revealed foundation and wall integrity issues in the same chemical storage area; another "medium" risk. Let's assume that the 10-year ACE cost table for this facility recommended repairs to the foundation and walls in year 8.

If these results are interpreted independently by the investment team, which is likely since the findings would be memorialized in three separate reports, the conclusion might be that the identified risks are manageable and that the business has ample time to address these issues at some point in the future. However, by integrating the scope and findings of these 3 workstreams, we can identify a more urgent finding at an individual site. **At this one facility, more frequent flooding events could further erode foundation integrity in the chemical storage area. Should a release or spill occur, hazardous materials could lose containment and migrate to nearby environmental receptors**.

With the above scenario in mind, a savvy technical advisor would likely revisit the 10-year ACE cost table and move the recommended repairs to the foundation and walls in the chemical storage area from year 8 to year 1 or 2.

Conclusion

Bridge House Advisors thinks that more thoughtful sequencing and the integration of EDD, ESG, and ACE due diligence workstreams can provide deeper insights, including commercial implications, to investment teams on current and future ESG performance. Further, important issues such as business resiliency, physical impacts of climate change, and mitigation and de-carbonization options can be better identified with an integrated approach that blends traditional environmental, broader ESG, and facilities assessments.

You gotta know what you're buying.

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