Investor Day December 12, 2023 Remarks by Timothy J. O'Shaughnessy **Chief Executive Officer Graham Holdings Company** and **Catherine Badalamente Chief Executive Officer Graham Media Group**



GRAHAM HOLDINGS COMPANY - INVESTOR DAY

December 12, 2023





































DISCLAIMER

These presentations at this meeting contain certain forward-looking statements that are based largely on the Company's current expectations. All public statements made by the Company and its representatives that are not statements of historical fact, including certain statements in this presentation, the Company's Annual Report on Form 10-K, its Current Reports on Forms 8-K, the Company's 2022 Annual Report to Stockholders, and the Forms 10-Q for the first, second and third quarter are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995.

Forward-looking statements are subject to certain risks and uncertainties that could cause actual results and achievements to differ materially from those expressed in the forward-looking statements. Actual results may differ materially from those projected as a result of certain risks and uncertainties. Other forward-looking statements include comments about expectations related to acquisitions or dispositions or related business activities, the Company's business strategies and objectives, the prospects for growth in the Company's various business operations and the Company's future financial performance. As with any projection or forecast, forward-looking statements are subject to various risks and uncertainties that could cause actual results or events to differ materially from those anticipated in such statements. Accordingly, undue reliance should not be placed on any forward-looking statement made by or on behalf of the Company. The Company assumes no obligation to update any forward-looking statement after the date on which such statement is made, even if new information subsequently becomes available.

For more information about these forward-looking statements and related risks, please refer to the section titled "Forward-Looking Statements" in Part 1 of the Company's Annual Report on Form 10-K, the Company's Current Reports on Forms 8-K, and its Forms 10-Q for the first, second and third quarter and the section titled "Corporate Governance/Risk Factors" under "Investor Relations" on the Company's website, www.ghco.com.

In addition to the results reported in accordance with accounting principles generally accepted in the United States (GAAP) included in this presentation, the Company is providing certain non-GAAP financial measures. The most directly comparable GAAP financial measure and a reconciliation of such non-GAAP financial measures to the most directly comparable GAAP financial measures can be found in the appendix of this presentation.

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It's great to be with you all again for our 2023 Investor Day. We have quite a bit to share today, and I appreciate everyone's attendance. The agenda will be as follows:

- A general update on financial results and operations of the Company;
- Catherine Badalamente, CEO of Graham Media Group, will provide an update on operations at GMG and how we are navigating the changing media landscape;
- A financial analysis of the three divisions we've built over the last 5 to 10 years:
 Healthcare, Automotive, and Manufacturing;
- Our thoughts on stock repurchases;
- A question and answer session for as long as time permits. We've received several
 questions in advance and would like to remind you that questions can also be submitted
 real time through the presentation portal.

GRAHAM HOLDINGS FINANCIAL RESULTS

Revenues	2020	2021	2022	Q3 '22 YTD	Q3 '23 YTD	% Change
Education	\$1,306	\$1,361	\$1,428	\$1,066	\$1,192	12%
Broadcasting	525	494	536	381	348	(9%)
Manufacturing	416	458	487	366	344	(6%)
Healthcare	198	223	326	231	332	44%
Automotive	258	327	734	510	765	50%
Other Businesses, Corporate and Elim's	186	322	414	307	268	(13%)
Total Revenues	\$2,889	\$3,186	\$3,924	\$2,860	\$3,248	14%
Adjusted Operating Cash Flow ¹	2020	2021	2022	Q3 '22 YTD	Q3 '23 YTD	% Change
Education	\$83	\$111	\$142	\$102	\$130	27%
Broadcasting	217	172	223	148	110	(26%)
Manufacturing	52	48	65	47	47	(1%)
Healthcare	33	32	34	23	34	47%
Automotive	3	14	38	28	32	14%
Other Businesses	(57)	(63)	(75)	(55)	(61)	(11%)
Corporate Office	(46)	(52)	(50)	(36)	(37)	(2%)
Total Adjusted Operating Cash Flow ¹	\$284	\$263	\$378	\$258	\$255	(1%)
Capital Expenditures	(66)	(163)	(82)	(57)	(72)	(26%)
Adjusted Free Cash Flow 1	\$218	\$100	\$295	\$202	\$184	(9%)

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Non-GAAP measure — see reconcination in appendix Note: the sum of certain amounts may not eaual the total due to roundin

We have been pleased with the results year to date. More has gone right than wrong in 2023. Perhaps a better measure of progress may be to note that through only three quarters of this year, we are also only modestly behind the 2021 full year adjusted operating cash flow number, and we still have one quarter to go.

The results have been driven by the expected recovery at Kaplan, steady results at manufacturing and automotive, and strong growth in the healthcare business. These largely offset expected declines at Graham Media and a modest increase in losses at Other Businesses.

Revenue continues to grow, with year to date totals up 14% from prior year, driven by a mix of organic and acquired growth.

Through Q3, our adjusted operating cash flow is modestly down from 2022. This gap will likely expand a bit in Q4 as we lap against the peak of last year's political advertising season.

Capital expenditures rose as several expansion projects launched at a few units. These should be substantially completed in 2024.

LIQUIDITYTREND



The balance sheet has not changed drastically this year. We continue to have a cash and marketable securities balance that exceeds debt. We took out a Term Loan A, due in May 2027, largely as a revolver supplement to increase flexibility and modestly change our maturity profile. Our total debt as of 9/30 remains similar to the levels prior to taking the Term Loan A.

EDUCATION DIVISION KAPLAN					APLAN	
\$ in millions						
Revenues	2020	2021	2022	Q3 '22 YTD	Q3 '23 YTD	% Change
Kaplan international	\$654	\$727	\$816	\$598	\$715	19%
Higher education	319	322	310	234	251	7%
Supplemental education	327	309	302	233	227	(3%)
Kaplan corporate and other	6	3	(0)	0	0	_
Total Revenues	\$1,306	\$1,361	\$1,428	\$1,066	\$1,192	12%
Adjusted Operating Cash Flow ¹	2020	2021	2022	Q3 '22 YTD	Q3 '23 YTD	% Change
Kaplan international	\$35	\$55	\$96	\$66	\$85	30%
Higher education	32	33	33	24	40	68%
Supplemental education	33	47	32	26	24	(5%)
Kaplan corporate and other	(17)	(24)	(18)	(13)	(19)	(53%)
Total Adjusted Operating Cash Flow ¹	\$83	\$111	\$142	\$102	\$130	27%
Capital Expenditures	(34)	(101)	(47)			
Adjusted Free Cash Flow ¹	\$49	\$11	\$95			

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1 Non-GAAP measure — see reconciliation in appendix
Notes the sum of costain amounts may not equal the total due to reundi

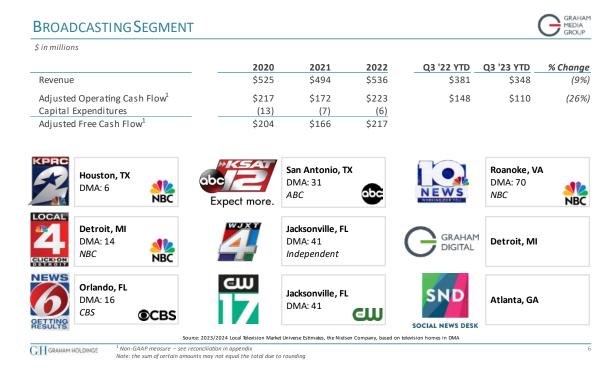
The team at Kaplan is doing amazing work. Improved results have been realized year to date at both Kaplan International (KI) and Kaplan North America (KNA).

Revenue is up 12% year to date with adjusted operating cash flow increasing to \$130 million, a 27% increase over the prior year. Corporate costs are up due to the achievement of several incentive compensation awards. The improved results are wonderful. Kaplan is increasingly viewed across the global education ecosystem as a highly valued partner and has been able to build upon that reputation to continue to grow its business, both in and outside the U.S.

I've never felt better about our ability to continue to provide solutions for both the rising global middle class and higher education institutions. In 2020, it was projected that one billion people will enter the global middle class over the following decade, with enrollments into postsecondary education growing by more than 150 million during the same period. I would argue Kaplan is better positioned than any organization in the world to help address this market need. We should continue to capitalize on our ability to deliver results for students and shareholders in the coming years.

Andy Rosen and his team have done a remarkable job in changing the nature of Kaplan.

- At Kaplan North America, our supplemental business has migrated away from a major dependency on the pre-college segment and is more geared to professional certifications with increasing institutional sales via our "All-access" programs.
- Also at KNA, the higher education business has transitioned from proprietary degree awarding programs to becoming a key partner with universities.
- At Kaplan International, we have a diverse set of programs for students, in a diverse number of end markets, from a diverse number of student source countries. Perhaps nothing exemplifies the change more than the fact that ten years ago, one of Kaplan International's biggest income producing businesses was Languages. Now it's one of the smallest, yet KI is much larger than a decade ago.



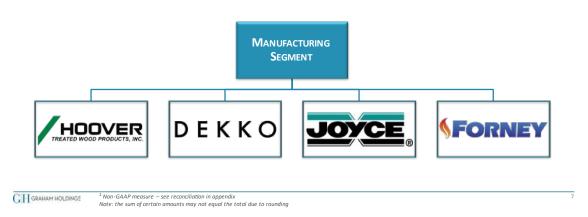
Catherine will follow with an in-depth presentation on Graham Media Group, so I will only touch on the business briefly.

With an off-cycle year of political advertising, year to date revenue through Q3 is down 9% and adjusted operating cash flow is down 26%. We expect steady demand from local advertisers and robust demand from political advertisers to drive a very strong 2024.

The media bundle and distribution of local news is in the midst of change. Catherine will discuss how Graham Media is approaching that change shortly.

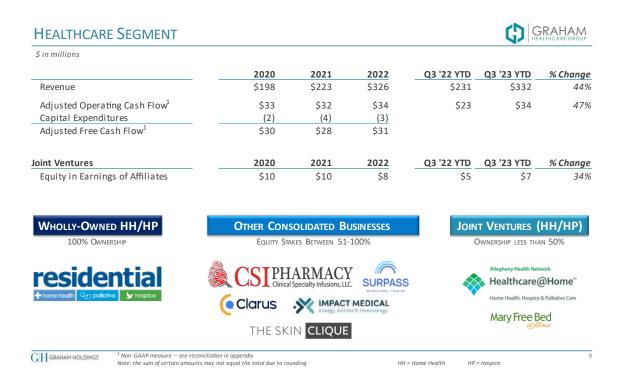
MANUFACTURING SEGMENT

\$ in millions						
	2020	2021	2022	Q3 '22 YTD	Q3 '23 YTD	% Change
Revenue	\$416	\$458	\$487	\$366	\$344	(6%)
Adjusted Operating Cash Flow ¹	\$52	\$48	\$65	\$47	\$47	(1%)
Capital Expenditures	(8)	(7)	(8)			
Adjusted Free Cash Flow ¹	\$44	\$41	\$57			



The Manufacturing segment has had another solid year. Led by Hoover, with a strong contribution from Joyce/Dayton, the segment had flat adjusted operating cash flow with revenue modestly down.

We are patiently awaiting the recovery of the commercial real estate market, which would lead to improved results at Dekko. Nearly four years after the start of the pandemic, I am hopeful we are closer to a world where supply and demand normalization of commercial office space is on the horizon.



Growth continues at Graham Healthcare Group. Consolidated revenue has increased 44% year to date with adjusted operating cash flow up 47% to \$34 million. At the joint ventures, GHG's share of earnings increased 34%.

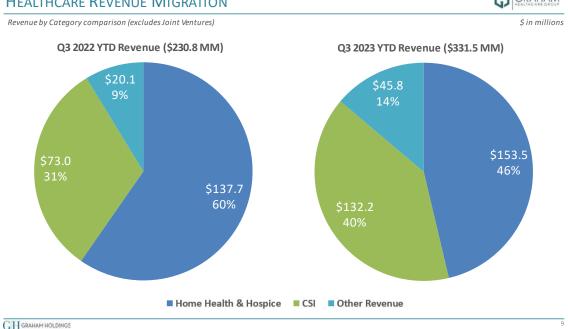
As a reminder, the healthcare operations are comprised of three areas: Wholly-owned home health and hospice operations; home health and hospice joint ventures; and, other healthcare services businesses where we hold equity stakes between 51% and 100%.

Our growth has been driven by a few factors:

- 1) Strong, purpose driven management;
- 2) Quality outcomes in the care we provide;
- Societal desire and economic motives for care to be delivered outside of a hospital or medical facility setting when appropriate.







All three parts of the business have grown in 2023, although at different rates. Revenue has grown the fastest within our newer healthcare services businesses. At CSI Pharmacy, the opening of two additional pharmacy locations kicked off additional geographic penetration. We are also beginning to see the benefits of investing in the management infrastructure to grow CSI into a larger company. The investments in 2022 and the beginning of 2023 have paid dividends and should continue to provide operating leverage moving forward. CSI's revenue year to date has increased 81% and we believe the business has more runway ahead.

Home health and hospice continues to grow their operations, revenue, and operating income, even in the face of more challenging reimbursement rates and costs of service delivery. With recent consolidation in the broader industry, our strength as one of the larger, independent operators should be an advantage moving forward as hospital systems look for home health and hospice partners.

We remain excited about the future prospects at Graham Healthcare Group. We should be able to grow organically, as well as occasionally expand our operations via acquisition. The sector is enormous, and we expect this formula to work for some time to come.

AUTOMOTIVE SEGMENT

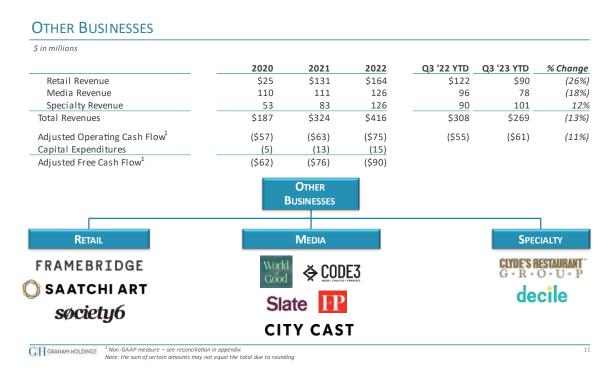


2023 saw another steady year of performance at the automotive group. In addition to acquiring Toyota of Richmond at the end of September, we are on track to be open for business at Kia of Bethesda by the end of the year.

Year to date revenue grew substantially from prior year, partially due to some organic growth, but largely tied to a full year of owning our two rooftops in Woodbridge, Virginia. Adjusted operating cash flow is up 14% through Q3 as well.

The addition of Toyota of Richmond and Kia continue to leverage our DC area team and infrastructure to build one of the area's premier operating groups.

Overall, business remains solid. Although new and used vehicle front end gross profits have begun to retreat from the highs of recent years, we believe the overall consumer demand equation for the industry looks favorable for the foreseeable future. Additionally, the continued development of strong hybrid products by our OEM partners seems to be addressing a consumer need. We believe our brands are favorably positioned to meet these consumer preferences.



Our Other Businesses group did not take the step forward we had hoped for this year, although there are signs that trends may be improving.

Revenue has decreased year to date by 13% and adjusted operating losses have worsened by \$6 million. We expect this cash flow trend to reverse in 2024.

The primary reason for the lack of expected improvements is the results from the former Leaf businesses, which took a step back in 2023, offsetting improvements at many other units. As discussed in May at the Annual Meeting, in Q2 we eliminated the holding company structure at Leaf and began to transition the three businesses into standalone companies. Costs associated with this transition elevated Leaf losses on a short-term basis beyond what they would have otherwise been.

While not entirely through the transition phase, we are much closer to the end than the beginning. The businesses now largely operate as distinct units with separate leadership. By the end of 2023, we will have reduced the annual fixed expense base of the former Leaf businesses

by over \$20 million. Costs tied to these efforts will have largely cycled out after the first half of 2024.

Beyond Leaf, we've made good progress. Two of our media businesses crossed the line to profitability in 2023, Slate and Foreign Policy. They are to be commended for building diversified digital media businesses that do important work in the world. 2023 has been a year of real headwinds in the larger digital media landscape. Being able to make the progress they have made with macro headwinds is an impressive accomplishment.

Elsewhere, Framebridge continues its market expansion. We expect to roll out dozens of additional retail stores in the coming years, on the back of 6 new retail locations in 2023. At Framebridge, much of the fixed cost base has now been built. While these costs will continue to grow modestly, we should see progress in the P&L as the continued expansion reflects the operating leverage of a scaled Framebridge.

While there is much work to do, we remain optimistic and firm in our belief that Framebridge will become the biggest brand and business in custom framing.

Overall, the Other Businesses group is poised to take a big step forward in 2024, with losses meaningfully reduced.

I'd now like to pass the mic over to my colleague, Catherine Badalamente, who will provide an update on operations at Graham Media Group.

Thank you, Tim.

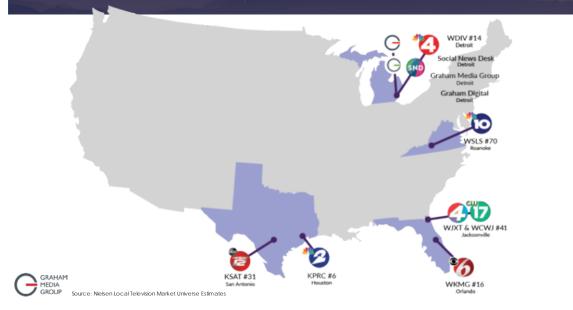


As 2023 comes to a close, I want to start today by thanking the universe for making my first full year as CEO never dull, and full of exciting opportunities for growth. While 2023 has had no shortage of challenges, I am buoyed by the fact that the empirical truth remains: our audience and our customers want and need the products, services, and solutions we provide and produce.

We provide considerable value. Value to our communities. Value to our Employees. And Value to our Stakeholders.

GRAHAM MEDIA GROUP PROPERTIES

Over 8.8 million Television Households, 7.11% of US Households



As a reminder, we are comprised of seven local media hubs covering just over 7% of the U.S., primarily in top 50 markets with Houston as our largest market at number six and Roanoke our smallest market at number seventy. The big change to the group this year includes market rank improvement for Houston, passing Atlanta to become the 6th largest TV market, along with Orlando and Roanoke also moving up one spot in their rankings. Another important note, SocialNewsDesk, our Saas-based social media management company, under the new leadership of Vice President and General Manager, Aaron King, moved its headquarters to Michigan.

2023 OPERATING RESULTS

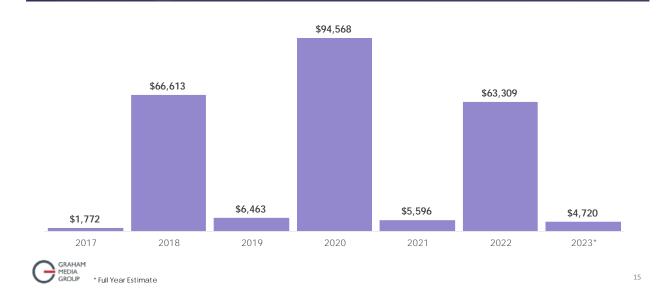
	Q3 '22 YTD Actual	Q3 '23 YTD Actual	% Change
Total Revenue	\$381	\$348	(9)
Total Expense, Excluding Amortization of Intangible Assets ¹	245	250	2
Operating Income before Amortization ¹	\$136	\$98	(28)
Operating Margin ¹	35.7%	28.1%	
Adjusted Operating Cash Flow ¹	\$148	\$110	(26)
Adjusted Operating Cash Flow Margin ¹	38.8%	31.5%	



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No surprise that in this odd, non-political year, total revenue is down for the first three quarters of 2023 in comparison to 2022's significant political revenue. With no real political to speak of in 2023, and a challenging ad market, we saw operating income before amortization decrease by \$38 million in the first nine months of 2023.

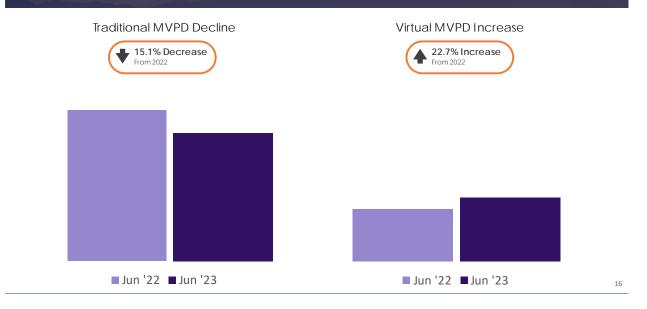
GMG NET POLITICAL REVENUE (\$ Thousands)



As mentioned, 2022 saw political dollars pour into our markets, most significantly in Detroit, while our Florida markets experienced less spending than in years past as that state has moved from its swing-state designation to being less competitive. We look forward to 2024 and a very competitive Michigan Senate race to help fuel robust political spend in Detroit.

MVPD & vMVPD SUBSCRIBER CHANGE

Cord-cutting and increased Streaming



Speaking of the challenges, cord-cutting is continuing to impact our business. Comparing June 2023 to June 2022, we have seen a 15% decline in traditional cable and satellite subscribers and an increase of 23% for the same time period of virtual streaming providers like YouTube TV, Peacock and Hulu Live. While the growth of virtual subscribers is a good story, it does not make up for the losses of subscribers on the traditional side, creating risk of a negative impact on our retransmission revenue.



So what are we doing about it? We are working harder than ever to solidify our position in our markets as the go-to destination for "Uniquely Local" news, information, events, and entertainment. We are not just pushing out information but serving as the catalyst and convener for our communities—bringing people together to learn, give back, celebrate, and even mourn.

WHAT WE BELIEVE

- The historic model of the past is declining
- News is undifferentiated
- Local operators need to innovate
- People continue to need community connection





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With that in mind, I thought it might make sense to take a step back and talk a bit about how we see the broader local broadcast ecosystem.

What we believe: The historic model of the past is declining. Disintermediation of the bundle and cord cutting reduces profits and makes distribution more challenging.

What this means: Earnings tied to net retransmission and traditional linear broadcast will shrink from the levels of today.

What we believe: The core news product in most markets is undifferentiated from other local stations. As a result, the industry has largely failed to cater to and develop younger audiences.

What this means: Local broadcast is now a misnomer. The value proposition for the community needs to leverage the brand but change meaningfully.

What we believe: Local operators need a balance sheet that allows them to innovate and embrace new ideas. Carrying leverage, particularly high levels of leverage, is limiting in terms of developing tomorrow's model.

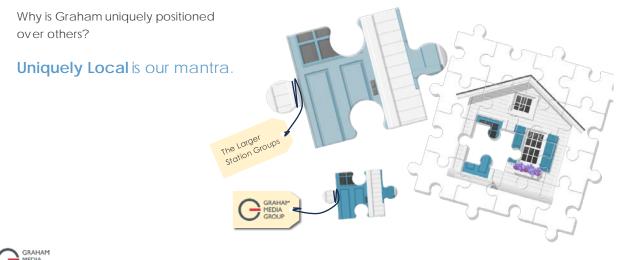
What this means: Graham Media Group is not going to carry substantial leverage in the current model and environment.

What we believe: People continue to want community connection. There is an opportunity to better drive shared culture locally.

What this means: Ten years from now, the business lines that Graham Media Group operates as well as and how we interact with the community are likely to be very different than today.

We need to harvest from the past while building the future. I'll spend the rest of my time discussing how we plan to go about this while providing examples of where we think future opportunities will exist.

LESS RELIANCE ON SYNDICATION & NETWORK



Why is Graham Media uniquely positioned? It comes back to "Uniquely Local." As I said, it is because Uniquely Local is our ethos. Compared to the larger station groups, it is difficult to make programming uniquely local if it needs to scale across the country. This strategy also helps lessen our reliance on syndication and network programming.

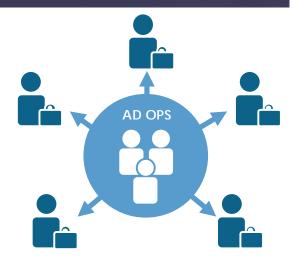
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PEOPLE - PROCESS - PRODUCT

What we're doing in news and sales

We're able to do things the larger players can't.

Transforming workflows in sales, the newsroom and news.

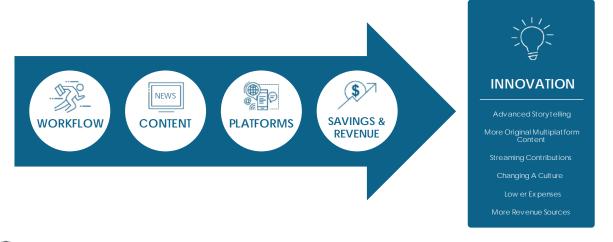




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Graham Media is focused on People, Process and Product in a way that the larger players can't. We are restructuring and investing, using research and technology to transform and create capacity for our sales teams, our newsrooms, and our business workflows. As an example, our sales ad ops and ad support teams are now centralized so that our account executives can be out in our markets, face to face with clients, providing solutions and value that create unbreakable bonds and relationships with our customers. It also allows us to answer the ad community and industry demands to make our process and product easier to transact.

METRICS THAT MATTER





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We are laser-focused on the metrics that matter - metrics that drive impact and results. My question to the team is always, "How will we know that we are successful?" and the relentless rigor of data and measurement is always key to our innovation process. Graham Media has partnered with a well-known strategy and consulting firm to help drive our newsroom transformation and workflow projects. Again, focusing on creating capacity so our people can better answer our audience and customer's ever-changing and dynamic needs. How will I measure the success of this project? By growing audience on all platforms (including broadcast); and, delivering a unique and hard to duplicate product, that passionately informs and celebrates our communities.

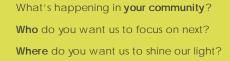
KNOW MY NEIGHBORHOOD

KSAT In The Community















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One example from our news transformation project is a renewed focus on getting out into our communities. KSAT in San Antonio just launched "Know my Neighborhood," a hyperlocal, multiplatform news project that lets residents set the agenda for our coverage. Each month, "Know my Neighborhood" takes viewers on a walk-through of a different South Texas community, showcasing everything from its history and public safety concerns such as food insecurity, to police presence and crime rates.

ASKING OUR AUDIENCE

What's Happening In Your Community? Where Do You Want Us To Shine Our Light?

In Your Neighborhood: Which Metro Detroit community should we visit next?



Successful Neighborhood Week

- Tons of positive feedback from the community.
- Finished overall November with early evening news wins by a large margin.

This includes YTY growth of+39% at 5:30pand +32% at 6p in Adults 25-54.



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WDIV in Detroit has launched "In Your Neighborhood", a mix of stories covering what people love most about their community, what's new and happening, as well as what issues they may be facing – always through the lens of solutions journalism. The launch week of "In Your Neighborhood" saw increases during its 5:30-6pm time slot, helping WDIV finish November with early evening news wins across the board and by a wide margin. This includes year to year growth of up 39% at 5:30pm and up 32% at 6pm in the Adult 25-54 demographic.

ORIGINAL PROGRAMMING

For All Platforms

We bring the local voice.

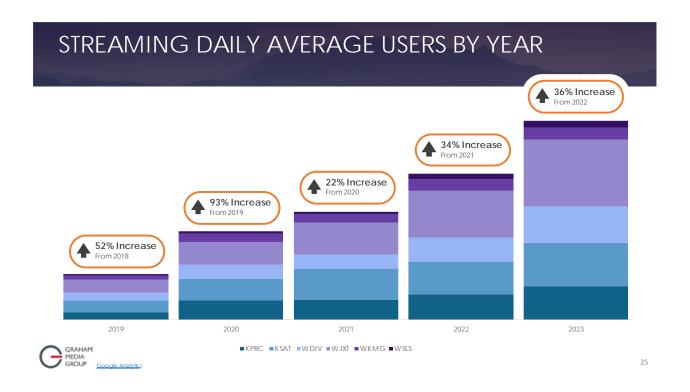
The large station groups are trying to create national programming while our investment in local makes us more valuable, unique and essential to local audiences.





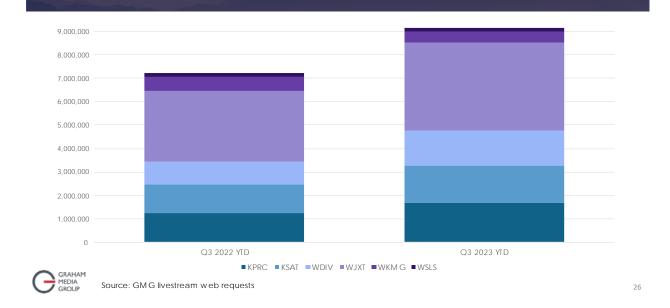
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In addition to transforming news on all platforms, we are using our streaming and digital channels as a sandbox for unique, local content. Shows like KPRC's "The Evidence Room", an award-winning true crime docuseries that brings a fresh perspective to the Houston area's most notorious crimes and convictions, utilizing unprecedented access to evidence stored at the Harris County criminal archives, or KSAT's "Big Game Coverage", which brings the best local high school sports reporting in San Antonio, and WKMG's "News6+ Takeover", that broke the mold for Local TV News featuring unique stories surrounding Central Florida, a deep dive into the state's ever-changing weather and long-form journalism dedicated to finding solutions in their community.



All of these efforts have resulted in significant year over year growth in streaming users, with the first nine months of 2023 averaging 36% more daily average users over 2022.

STREAMING HOURS WATCHED



Our streaming platforms have seen an increase of more than 2 million hours watched over the same time period last year. We know we need to continue to drive even bigger results, but are pleased with the continued traction.

BROADCAST AS A PLATFORM

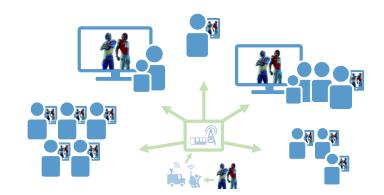
NextGenTV'sFuture as a platform competitor

Community Benefits

- Highly Available In Emergencies
- Privacy First
- Local
- FCC Licensed-Public Good

Broadcaster Benefits

- Direct-to-Consumer Marketing
- Long-term Infrastructure Investment
- Direct Measurement, Addressable





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Another area of focus for Graham Media continues to be NextGenTV or the ATSC 3.0 transition. Four of our six markets are live and launched, with San Antonio and Jacksonville scheduled to roll out in 2024. The recently created FCC Future of TV initiative is a strong step towards planning the completion of the NextGen transition. Announced in April at NAB Show by the FCC Chairwoman, there are now monthly meetings of three working groups: backwards compatibility, completing the transition, and the post-transition regulatory environment. This initiative is slated to last one year and will result in recommendations issued to the FCC upon completing their work taking us one step closer to fully transitioning to NextGen TV. While we believe this is a positive step for the industry, and a critical move that allows broadcast to fully compete with digital, we are more reserved in our optimism than some of our counterparts as to the business potential.

PIGSKIN CLASSIC







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I mentioned earlier, we continue to grow our local events strategy and I wanted to highlight one of Graham's biggest success stories - KSAT's Pigskin Classic. The second-annual KSAT Pigskin Classic, which featured San Antonio's biggest high school football matchups streamed and broadcast over 2 days at the Alamodome, resulted in meaningful revenue this year. And just to be clear, Pigskin Classic didn't exist before KSAT created it – this isn't the TV station slapping a logo on something. This is a home-grown, all-out effort on behalf of the station and staff to delight their audience and the future news consumers of San Antonio. We will launch, operate, stream, and televise more large-scale events in 2024.

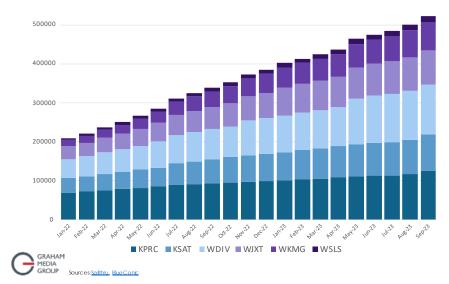
Being woven into the fabric of local happenings helps cement our role and relevance in our local markets. It fuels much of the content and community connection central to our success.

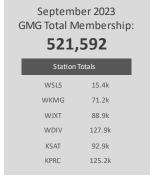


While other broadcasters are looking toward professional sports partnerships and licensing deals, Graham Media is leaning in now more than ever to high school sports. What is more uniquely local than the underreported, high school and youth sports category? KSAT's "Big Game Coverage" has now grown beyond San Antonio to Houston, and we streamed over 400 high school football games this year across the two markets, in addition to 250 other high school sporting events.

While it's early days, we're excited about the economic model that we're building. We stream and run advertising on the games, local partners sponsor a "player of the game," and we provide access to games with high production value that family, friends, and alumni would otherwise miss out on. This model does not rely on network content, drives both linear and streaming viewership, and is uniquely local, further enhancing and differentiating our brand in market.

GMG MEMBERSHIP or "INSIDERS"





We continue to focus on the user relationship, building our membership program to over half a million members or Insiders, moving people from TV and our big digital audiences down the user funnel into an engaged state where we can know them better. Registering as an Insider on one of our digital sites allows us to super serve our audience and give them a premium user experience.

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DEEPENING THE USER RELATIONSHIP First-Party Data

- Continued growth in registered users.
- More data points per user.
- Custom audience segments, first-party signals and experimenting.
- Enhancing experience and engagement.





It also gives us the latitude to develop multiple data points per user, customize audience segments, create first party signals, and most importantly experiment. All of this with the end goal of enhancing the user experience and creating deeper engagement. This increased engagement leads to more time spent on our platforms, increasing advertiser value and results. Our ideal clients are large enough to be looking for the specific audiences we uniquely serve. We can work with our clients to match this ideal audience with their marketing message and provide in-depth metrics that will make their marketing more valuable and successful.

REVENUE GROWTH

Business Development







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What is the result of all this invention, workflow improvement, and creation of capacity? Well, in 2023 we saw an 18% increase year over year in new digital and new TV revenue business growth.

WANDERSTREAM & CONTROLPLUS

Building Technology for Broadcast Streaming

Custom GMG developed applications

- Wanderstream allows employees to go LIVE on all streaming platforms without the need for a full control room
- Run dynamic ad breaks in streaming creating revenue opportunities for previously unmonetized LIVE content
- ControlPlus leverages established broadcast workflows and scheduling for digital streaming
- Same viewing experience overthe-air, cable, apps or streaming





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Finally, Graham Media Group has once again helped drive new industry innovations. Developed 100% in-house by Graham Media employees, "Wanderstream" allows employees to go LIVE on all streaming platforms without the need for a full control room. It also allows us to run unscheduled, dynamic ad breaks creating new revenue opportunities for previously unmonetized content. "ControlPlus" created a critical video infrastructure upgrade that leveraged established broadcast workflows and scheduling for digital streaming. It reads over the air commercial break times and translates these times for our streaming platforms. This results in the same viewing experience over the air, on cable, apps or streaming.

Al Pilots, Experiments, Investments







Google Trusted Partner



3.4

And what would a media presentation in 2023 be without the mention of AI, more specifically, generative AI. Graham Media is partnering with industry leaders like NYU, the Associated Press and Google on multiple AI experiments, working to envision and secure a healthy future for local journalism.

WHAT WE'RE DOING



Now that we've discussed where we are headed, I wanted to add one more lens beyond my earlier comments around "what we believe" and "what this means" – now I'd like to summarize that with a "what we're doing".

What we're doing: Creating new, profitable earnings streams that are disconnected from both net retransmission and linear television.

What we're doing: We are no longer solely a local broadcast company and we do not believe you should view us this way. We will have larger audiences and connect with more people through platforms outside of the linear broadcast than within it.

What we're doing: Graham Holdings will not do anything that constrains its balance sheet and our ability to drive the business forward.

What we're doing: In addition to linear, we expect to have a profitable streaming and digital news business, a profitable live events business, and profitable high-school sports operations.



Thank you for your time today and I am happy to answer any questions you may have during our Q&A session.

Back to you Tim...



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Thanks, Catherine. Let's move from operations to capital allocation.

CAPITAL ALLOCATION REVIEW

G H GRAHAM HOLDINGS

\$ in millions			
	MANUFACTURING	HEALTHCARE	AUTOMOTIVE
nvested Capital	\$544	\$2441	\$258 ²
TD Adjusted Free Cash Flow (exeal estate)	358	170	7238 71
TD Adjusted Free Cash Flow (exeal estate) as a % of Invested Capital	66%	- ⁴	28%
TD Equity in earnings of affiliates	-	45	-
TM Adjusted Operating Cash Flow	\$64	\$45	\$42
TM Adjusted Free Cash Flow	47	34	34
TM Equity in earnings of affiliates	_	10	-
ootnotes Healthcare Invested Capital includes transactions for both consolidated operations and joint ventures. Invested Capit which may not reflect the ultimate amount that would be paid to minority investors in the event the Company o	acquired these in terests.	value of non -controlling interes	sts as of September 30, 2023,
Automotive Invested Capital includes the entire acquisition, inclusive of the amounts which were funded by the mino purchased in 2021 that is excluded from the calculation of Adjusted Free Cash Flow. Finally, Invested Capital excli- end of Q3 and therefore only insignificant activity from this transaction is reflected in Adjusted Operating Cash Fli- Non-GAAP measure — see reconciliation in appendix	udes all p urchase activity related	wested Capital includes \$27 mil to the Richmond dealership tran	
No percentage shown for Healthcare. The calculations for equity in earnings of affiliates and Adjusted Free Cash Flov	v are on a different basis.		

The company you own looks very different than it did a decade ago. Three new segments were created over the last decade: manufacturing, healthcare and automotive. These segments were initially created via acquisitions, and then have grown via subsequent bolt-on M&A, in addition to organic growth. While this is not a comprehensive view of every dollar spent on acquisition, it does represent the lion's share, as well as the "cleanest" segments to conduct a review against.

We'd like to use today as an opportunity to show an initial assessment of these segments by discussing how much capital has gone into these businesses and the related returns.

We'll start with manufacturing. The segment is comprised of four operations: Forney,
Joyce/Dayton, Dekko, and Hoover Treated Wood Products. The companies operate as niche
manufacturers in a diverse set of end markets, with a largely North American manufacturing
footprint.

Beginning with the Forney Corporation acquisition in 2013, the company has paid approximately \$544 million to acquire the businesses as well as several small bolt-ons. In the

last 12 months, the businesses generated approximately \$64 million in adjusted operating cash flow. During the entirety of our ownership period, the companies have returned roughly 66% of our investment on a pre-tax adjusted free cash flow basis, leaving us with a net investment of about \$186 million. We believe the health of the segment is strong and expect meaningful future contributions to Graham Holdings with minimal investment required.

Our healthcare operations have grown from two separate home health and hospice businesses, to become one unified, scaled healthcare services provider with multiple service lines. To date, total capital invested since inception has been \$244 million – this excludes non-controlling interest balances of \$65 million as of September 30. Also since inception, adjusted free cash flow of \$170 million was generated from consolidated operations, while equity in earnings from joint ventures totaled \$45 million. In the last 12 months the business generated \$45 million in adjusted operating cash flow and \$10 million in equity earnings from joint ventures.

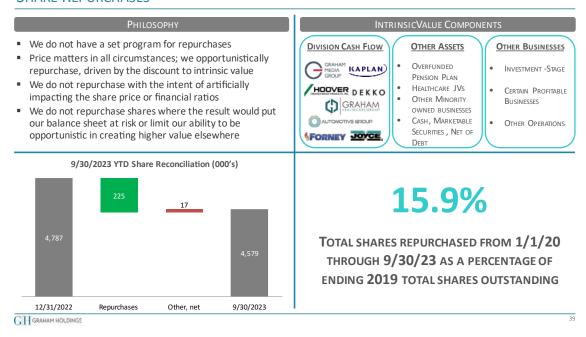
These returns and growth occurred during a period where we have also been investing heavily to generate future year earnings. If we were not focused on building much larger earnings over the long term, our 2023 adjusted operating cash flow could have been meaningfully higher.

Lastly, our automotive segment is the newest of the three, with the first two dealerships purchased in 2019 and the most recent acquisition in September of this year. Cumulative capital invested through 9/30, including real estate purchases but excluding our recent Toyota of Richmond acquisition, which closed on September 27, has been \$258 million. Adjusted free cash flow generated to date has been \$71 million, or 28% of the investment amount. On a TTM basis, the business has generated \$42 million in adjusted operating cash flow.

In all three segments, we expect the original investment amount to continue to be "paid down" rapidly in the coming years.

In aggregate, over the last 12 months these three segments generated adjusted operating cash flow of \$151 million plus \$10 million in equity earnings from joint ventures against a total investment level of \$1.05 billion. The returns on equity capital are somewhat higher, as the automotive group and the healthcare group have each carried moderate amounts of leverage. Total equity capital invested in these three segments has been roughly \$900 million. We believe that these returns on equity are sustainable and realistic moving forward.

SHARE REPURCHASES



Through September 30, the Company has repurchased 224,871 shares, representing 4.7% of the total shares outstanding at the beginning of the year. As a reminder of our philosophy:

- We do not have a set program that commits us to buying shares regardless of price
- We repurchase shares when we believe the price is materially below our view of intrinsic value. Price always matters.
- We do not repurchase with the intent of artificially impacting the share price
- We will not introduce undue risk to our balance sheet or limit our strategic flexibility.

Throughout 2023, the above parameters have been met and we have bought and continue to buy shares at a brisk clip. Annualizing the Company's share repurchases and dividends through September 30, we will have returned nearly 8% of our market cap to shareholders based on our share price on September 30, 2023. Since the spin-off of Cable One in 2015, the Company has raised its dividend each year.

If our share price remains in the current range, assuming no major fundamental changes to the business, we expect to continue to repurchase shares as we head into 2024. At the Q3 pace, with all practicalities aside, we would be out of Class B shares within a decade.

I thought it may be helpful to lay out some of the key factors we look at when determining that a deep discount to intrinsic value exists:

- As of September 30, cash and marketable securities more than offset debt, leaving net debt positive – demonstrating our balance sheet has capacity.
- We have two segments, Kaplan and Graham Healthcare Group, that are growing their
 adjusted operating cash flow at strong rates. Year to date through September 30, Kaplan
 has grown this metric by 27%, while GHG has grown by 47%. We expect organic growth
 in adjusted operating cash flow to continue to occur in both businesses for the
 foreseeable future.
- The business has reduced its reliance and cyclicality away from the every other year yoyo cycle of political spending at Graham Media Group. Increased cash flow generation elsewhere has provided more consistent free cash flow and more certainty of earning power for the Company broadly.
- As of 9/30, the overfunding of the pension plan is estimated to be \$1.9 billion. Our current and retired employees receive real value from the fund, and we have been able to increasingly figure out ways to leverage the pension plan for benefits previously paid out of the company's treasury accounts. The overfunding level of the pension plan is now approximately 3.2x.
- Since 2020, the Company has reduced its share count by 16%, increased the number of segments with scaled earnings power to five, and has several platform businesses, most notably at Kaplan, Graham Healthcare, and Automotive that can occasionally make accretive bolt-on acquisitions.
- The Company has grown the combined trailing 24 month adjusted operating cash flow through September 30 by 22% as compared to the combined results of 2019 and 2020.

We have been able to do so even while investing in several growth opportunities that we expect to drive meaningful cash flow in the future, most notably at Framebridge and Graham Healthcare.

 Due to the above, we think the discount to intrinsic value has grown meaningfully wider and the rate of change of the discount has accelerated. Continued good performance at most of the units, as well as this year's share repurchases have further widened the gap.

The above focuses more on *why* we think the Company has grown its per share intrinsic value. I'd like to spend a little time on *how* we think about the value of the business.

We look at three primary buckets:

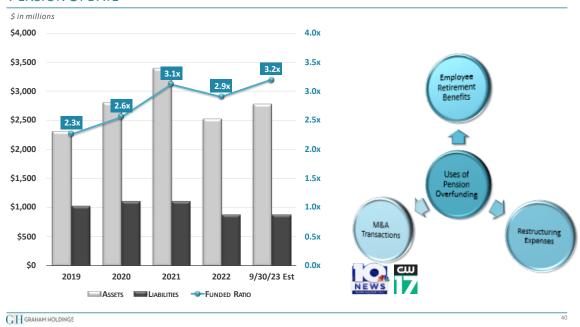
- 1) Our scaled divisions;
- Our non-consolidated assets, such as our healthcare joint ventures and pension overfunding, and cash, investments and debt;
- 3) The Other Businesses group.

Let's start with the biggest group, our scaled divisions. This group is comprised of Graham Media, Kaplan, and our manufacturing, healthcare and automotive segments. Collectively, in the last twelve months, these divisions (inclusive of Graham Holdings' corporate costs) generated \$455 million of adjusted operating cash flow.

We believe the cash flow generation from this group is likely to increase next year and over time.

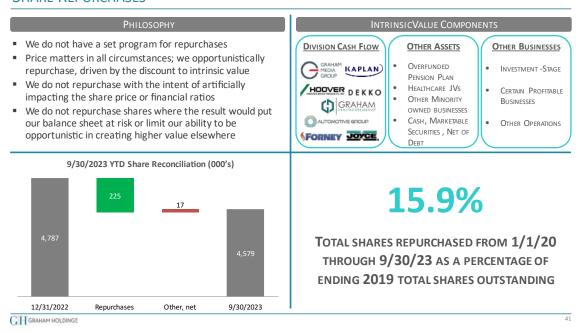
Our second group is comprised of value that typically does not flow through the P&L. I'll briefly discuss the largest components:

PENSION UPDATE



As discussed previously, our pension plan provides real benefits to employees by generously creating retirement savings. If today we were to close the plan, withdraw the over-funding, and pay the associated excise and income taxes, we would be left with somewhere in the neighborhood of \$400 to \$500 million in proceeds. Now, this has not made sense to us due to our confidence that we will continue to find alternatives to leverage the pension plan overfunding in ways that exceed the leakage. Year to date, our pension expense has increased from \$17 million to \$25 million. This is largely due to working with our businesses to better leverage pension benefits in lieu of benefits paid from our corporate treasury. We expect this to continue in 2024, as many of our businesses will eliminate a 401(k) match and instead offer an enhanced pension benefit to our employees.

SHARE REPURCHASES



Our joint ventures at Graham Healthcare are partnerships with hospital systems to provide home health and hospice services in Pennsylvania, Michigan, and Illinois. We are the operating partner of these joint ventures and are proud of the work we do alongside our partners. These partnerships have generated consistent profitability; and, as previously mentioned, contributed \$45 million of equity earnings since inception. Importantly, cash is regularly distributed to partners via a dividend.

Beyond pensions and healthcare joint ventures, we have a set of minority investments and borrowings due to us where the book value is currently \$269 million.

Lastly, we look at our cash, marketable securities, and debt obligations.

Our final bucket is "Other Businesses". As discussed previously, this group is currently in loss-making mode, but is likely to reduce aggregate losses significantly over the next several years. This group is currently made up of three profitable businesses, one breakeven business, several investment stage businesses, and the turnaround operations at the former Leaf units.

While placing a multiple against the current losses of this group would certainly be an acceptable way of assessing value, it is not how we view their value to the organization.

We manage, assess, and fund businesses within the group solely based on a clear, rational view of cash invested today against our view of the future discounted cash flows. Happily, there are a few businesses within the group that no longer need this assessment because they no longer require funding.

Over time, businesses either become profitable, are divested, or they are shut down. We believe the cash invested today will yield positive returns in the coming years and total aggregate investment levels are beginning to decline at a meaningful clip. While it's profoundly foolish to try to precisely value anything, we believe meaningful value exists in our Other Businesses.

The Company has spent considerable sums on share repurchases in 2023 and may do so in 2024, depending on price and the opportunity set ahead. My hope is that this is helpful to shareholders in understanding how we think about repurchases and why we believe this is an excellent use of capital.



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In closing, thank you for your time today and we hope you feel more informed about the business. At this point, we'll open it up for questions. As a reminder, the chat in the online portal allows you to submit questions.



APPENDIX

NON-GAAP ADJUSTMENTS

































GRAHAM HOLDINGS COMPANY

Non-GAAP Adjustments								\$ in millions
						Other	Corporate	
2022	Education	Broadcasting	Manufacturing	Healthcare	Automotive	Businesses	Office	Total
Operating Income (Loss)	\$83	\$202	\$34	\$15	\$35	(\$228)	(\$56)	\$84
Add: Amortization / Impairment	16	5	20	4	-	142	-	188
Add: Depreciation	34	12	9	4	4	9	1	73
Add: Pension Expense	9	4	1	11	0	2	6	33
Adjusted Operating Cash Flow	\$142	\$223	\$65	\$34	\$38	(\$75)	(\$50)	\$378
Capital Expenditures	(47)	(6)	(8)	(3)	(4)	(15)	(0)	(82)
Adjusted Free Cash Flow	\$95	\$217	\$57	\$31	\$35	(\$90)	(\$50)	\$295
						Other	Corporate	
2021	Education	Broadcasting	Manufacturing	Healthcare	Automotive	Businesses	Office	Total
Operating Income (Loss)	\$51	\$149	(\$16)	\$27	\$12	(\$86)	(\$59)	\$77
Add: Amortization / Impairment	19	5	53	3	-	10	-	91
Add: Depreciation	32	14	10	1	2	11	1	71
Add: Pension Expense	9	4	1	1	-	2	6	23
Adjusted Operating Cash Flow	\$111	\$172	\$48	\$32	\$14	(\$63)	(\$52)	\$263
Capital Expenditures	(101)	(7)	(7)	(4)	(31)	(13)	(0)	(163)
Adjusted Free Cash Flow	\$11	\$166	\$41	\$28	(\$17)	(\$76)	(\$52)	\$100
						Other	Corporate	
2020	Education	Broadcasting	Manufacturing	Healthcare	Automotive	Businesses	Office	Total
Operating Income (Loss)	\$12	\$194	\$12	\$26	(\$6)	(\$86)	(\$52)	\$100
Add: Amortization / Impairment	29	5	28	4	7	13	-	87
Add: Depreciation	32	14	10	2	2	14	1	74
Add: Pension Expense	10	3	1	1	_	2	6	23
Adjusted Operating Cash Flow	\$83	\$217	\$52	\$33	\$3	(\$57)	(\$46)	\$284
Capital Expenditures	(34)	(13)	(8)	(2)	(3)	(5)	(0)	(66)
Adjusted Free Cash Flow	\$49	\$204	\$44	\$30	(\$1)	(\$62)	(\$46)	\$218

GRAHAM HOLDINGS COMPANY

Non-GAAP Adjustments										\$ in millions
								Other	Corporate	
Q3 '23 YTD	Education	Broadcasting	Manufacturi	ng Hea	althcare	Automoti	ive	Businesses	Office	Total
Operating Income (Loss)	\$83	\$94	(\$:	22)	\$17	Ş	529	(\$132)	(\$40)	\$29
Add: Amortization / Impairment	12	4		61	3		0	59	-	138
Add: Depreciation	28	9		7	4		4	11	0	63
Add: Pension Expense	7	2		1	11		0	2	3	25
Adjusted Operating Cash Flow	\$130	\$110	\$	47	\$34	\$	32	(\$61)	(\$37)	\$255
Capital Expenditures										(72)
Adjusted Free Cash Flow										\$184
								Other	Corporate	
Q3 '22 YTD	Education	Broadcasting	Manufacturi	ng Hea	althcare	Automoti	ive	Businesses	Office	Total
Operating Income (Loss)	\$58	\$132	\$	24	\$19	\$	525	(\$78)	(\$41)	\$139
Add: Amortization / Impairment	12	4		15	3		-	10	-	44
Add: Depreciation	25	9		7	1		3	12	0	59
Add: Pension Expense	7	3		1	0		0	2	4	17
Adjusted Operating Cash Flow	\$102	\$148	\$	47	\$23	,	528	(\$55)	(\$36)	\$258
Capital Expenditures										(57)
Adjusted Free Cash Flow										\$202
Q3 '23 LTM									Corporate	
excludes Other Businesses	Educati	on Broadc	asting Ma	nufacturing	He	althcare	Autom	notive	Office	Total
Operating Income (Loss)	\$1	.08	\$164	(\$12)		\$14		\$38	(\$55)	\$256
Add: Amortization / Impairment		16	5	66		4		0	-	90
Add: Depreciation		37	12	9		6		5	1	70
Add: Pension Expense		9	3	1		21		0	4	39
Adjusted Operating Cash Flow	\$1	.70	\$185	\$64		\$45		\$42	(\$50)	\$455
Capital Expenditures				(17)		(10)		(8)		
Adjusted Free Cash Flow				\$47		\$34		\$34		

G[H] GRAHAM HOLDINGS Note: the sum of certain amounts may not equal the total due to rounding

GRAHAM HOLDINGS COMPANY

Non-GAAP Adjustments					\$ in millions
2022	Kaplan International	Higher Education	Supplemental	Kaplan Corporate	Total
Operating Income (Loss)	\$72	\$25	\$21	(\$35)	\$83
Add: Amortization / Impairment	_	-	-	16	16
Add: Depreciation	23	4	6	0	34
Add: Pension Expense	0	4	4	1	9
Adjusted Operating Cash Flow	\$96	\$33	\$32	(\$18)	\$142
2021	Kaplan International	Higher Education	Supplemental	Kaplan Corporate	Total
Operating Income (Loss)	\$33	\$25	\$37	(\$45)	\$51
Add: Amortization / Impairment	_	-	-	19	19
Add: Depreciation	21	4	7	0	32
Add: Pension Expense	0	4	4	1	9
Adjusted Operating Cash Flow	\$55	\$33	\$47	(\$24)	\$111
_2020	Kaplan International	Higher Education	Supplemental	Kaplan Corporate	Total
Operating Income (Loss)	\$15	\$25	\$20	(\$48)	\$12
Add: Amortization / Impairment	_	-	-	29	29
Add: Depreciation	20	3	9	0	32
Add: Pension Expense	0	4	4	1	10
Adjusted Operating Cash Flow	\$35	\$32	\$33	(\$17)	\$83

GRAHAM HOLDINGS COMPANY

Non-GAAP Adjustments \$ in millions

Q3 '23 YTD	Kaplan International	Higher Education	Supplemental	Kaplan Corporate	Total
Operating Income (Loss)	\$64	\$33	\$17	(\$32)	\$83
Add: Amortization / Impairment	-	-	-	12	12
Add: Depreciation	21	3	4	0	28
Add: Pension Expense	0	3	3	1	7
Adjusted Operating Cash Flow	\$85	\$40	\$24	(\$19)	\$130

Q3 '22 YTD	Kaplan International	Higher Education	Supplemental	Kaplan Corporate	Total
Operating Income (Loss)	\$48	\$17	\$18	(\$25)	\$58
Add: Amortization / Impairment	-	-	-	12	12
Add: Depreciation	17	3	5	0	25
Add: Pension Expense	0	3	3	1	7
Adjusted Operating Cash Flow	\$66	\$24	\$26	(\$13)	\$102

 $\overline{G}|H$ GRAHAM HOLDINGS Note: the sum of certain amounts may not equal the total due to rounding

BROADCASTING SEGMENT

Non-GAAP Adjustments \$ in millions

Broadcasting	Q3 '22 YTD	Q3 '23 YTD
Operating Income	\$132	\$94
Add: Amortization	4	4
Operating Income before Amortization	\$136	\$98
Add: Depreciation	9	9
Add: Pension Expense	3	2
Adjusted Operating Cash Flow	\$148	\$110
Operating Income before Amortization	\$136	\$98
Total Revenues	381	348
Operating Margin	35.7%	28.1%
Adjusted Operating Cash Flow	\$148	\$110
Total Revenues	381	348
Adjusted Operating Cash Flow Margin	38.8%	31.5%

Broadcasting	Q3 '22 YTD	Q3 '23 YTD
Total Expenses	\$249	\$254
Less: Amortization	4	4
Total Expenses, excluding amortization of intangible assets	\$245	\$250

GRAHAM HOLDINGS COMPANY

Non-GAAP Adjustments \$ in millions

Last 24 Months ended 9/30/23	Total
Operating Income (Loss)	\$135
Add: Amortization / Impairment	341
Add: Depreciation	156
Add: Pension Expense	64
Adjusted Operating Cash Flow	\$696
2019 + 2020	Total
Operating Income (Loss)	\$245
Add: Amortization / Impairment	149
Add: Depreciation	134
Add: Pension Expense	43
Adjusted Operating Cash Flow	\$571
Increase	22%



 $\overline{G|H}$ GRAHAM HOLDINGS Note: the sum of certain amounts may not equal the total due to rounding

GRAHAM HOLDINGS COMPANY

Non-GAAP Adjustments \$ in millions

Covers the period from August 2013 through September 30, 2023

Manufacturing Segment	ITD
Operating Income (Loss)	\$95
Add: Amortization / Impairment	267
Add: Depreciation	75
Add: Pension Expense	5
Adjusted Operating Cash Flow	\$442
Capital Expenditures	(84)
Adjusted Free Cash Flow	\$358

Covers the period from November 2012 through September 30, 2023

Healthcare Segment	ITD
Operating Income (Loss)	\$86
Add: Amortization / Impairment	65
Add: Depreciation	29
Add: Pension Expense	24
Adjusted Operating Cash Flow	\$205
Capital Expenditures	(35)
Adjusted Free Cash Flow	\$170

Covers the period from January 2019 through September 30, 2023

Automotive Segment	ITD
Operating Income (Loss)	\$69
Add: Amortization / Impairment	7
Add: Depreciation	14
Add: Pension Expense	0
Adjusted Operating Cash Flow	\$90
Capital Expenditures	(46)
Adjusted Free Cash Flow	\$44
Add: Real Estate Capital Expenditures	27
Adjusted Free Cash Flow (ex -real estate)	\$71



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